# THE
# JOURNAL OF PHYSIOLOGY

## AUTHOR AND SUBJECT INDEXES

to Volumes 61 to 100

LONDON
CAMBRIDGE UNIVERSITY PRESS

*Printed in Great Britain at the University Press, Cambridge*
*(Brooke Crutchley, University Printer)*
*and published by the Cambridge University Press*
*(Cambridge, and Bentley House, London)*
*Agents for Canada and India: Macmillan*

12064

# AUTHOR INDEX

## to Volumes 61 to 100

# PREFACE TO AUTHOR INDEX

THIS Author Index to the *Journal of Physiology* begins with Volume 61, the first published under the ownership of the Physiological Society, and extends to Volume 100.

In the compilation of the Index the same procedure has been adopted as in the previous one. All the papers written by an author, whether alone or in collaboration, are given under his name in chronological order. A paper by more than one author appears under *each* of its authors, with its full title and reference, and the original sequence of the authors' names is preserved: in order, however, to avoid the repetition of the marginal name, the sequence is indicated by the positions of the comma, the dash and the word 'and'. The authors' initials only have been used except in the case of women where the usual custom of including a first or Christian name in full has been followed.

When one volume has included papers published during two years, the date of the original publication is used: and in the case of Proceedings, the date of presentation of the paper at the Society's meeting. Papers in the *Proceedings of the Physiological Society* can be recognized by the fact that their page reference is given either in Roman numerals or in Arabic figures followed by the letter *P*.

M. GRACE EGGLETON

1946

# PREFACE TO AUTHOR INDEX

THIS Author Index to the Journal of Physiology begins with Volume 91, the first published under the ownership of the Physiological Society and extends to Volume 100.

In the compilation of the Index the same procedure has been adopted as in the previous one. All the papers written by an author, whether alone or in collaboration, are given under his name in chronological order. A paper by more than one author appears under each of its authors, with its full title and reference, and the original sequence of the authors' names is preserved; in order, however, to avoid the repetition of the marginal name, the sequence is indicated by the insertion of the comma, the dash and the word "and". The prefixes initials only have been used except in the case of women where the usual custom of including a first or Christian name in full has been followed.

When one volume has included papers published during two years, the date of the original publication is used and is the year of Proceedings, the date of presentation of the paper at the Society's meeting. Papers in the Proceedings of the Physiological Society can be recognized by the fact that their page reference is given either in Roman numerals or in Arabic figures followed by the letter P.

1965

# INDEX OF AUTHORS


ABELOOS, M. , *Barcroft, J., Cordero, N., Harrison, T. R. and Sendroy, J.* The measurement of the oxygen capacity of haemoglobin **66, 262, 1928.**

ADAIR, G. S. , *Cordero, N. and Shen, T. C.* The effect of temperature on the equilibrium of carbon dioxide and blood and the heat of ionization of haemoglobin **67, 288, 1929.**

" *and Robinson, M. E.* A direct method for the measurement of the hydration of proteins **72, 2P, 1931.**

" *and Keys, A. B.* A micro method for the determination of base by electrodialysis **81, 162, 1934.**

" *and Goodman, E. N.* A note on the potential difference across the stomach membranes in human subjects, and a simple type of calomel electrode **87, 35P, 1936.**

" , *Barcroft, J., Barron, D. H., Goodman, E. N., Hall, E. H., Hayasi, K., O'Brien, A., Pace, J. F. and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep **87, 37P, 1936.**

" *and Adair, M. E.* Osmotic pressures and albumin-globulin ratios of sera of normal and immunized rabbits **93, 11P, 1938.**

ADAIR, M. E. *Adair, G. S. and.* Osmotic pressures and albumin-globulin ratios of sera of normal and immunized rabbits **93, 11P, 1938.**

ADAM, H. M. , *McKail, R. A., Obrador, S. and Wilson, W. C.* Acetylcholine in the cerebro-spinal fluid **93, 45P, 1938.**

ADAMS, T. W. *and Pembrey, M. S.* The influence of muscular exercise upon digestion **72, 1P, 1931.**

" *and Poulton, E. P.* The fallacies of indirect calorimetry **77, 1P, 1932.**

ADLER, J. , *Bell, G. H. and Knox, J. A. C.* An optical device for recording small changes of pressure or volume **100, 12P, 1941.**

ADRIAN, E. D. The impulses produced by sensory nerve endings. Part I **61, 49, 1926.**

" *and Zotterman, Y.* The impulses produced by sensory nerve-endings. Part II. The response of a single end-organ **61, 151, 1926.**

" *and Zotterman, Y.* Impulses from a single sensory end-organ **61, VIII, 1926.**

" *and Zotterman, Y.* The impulses produced by sensory nerve-endings. Part III. Impulses set up by touch and pressure **61, 465, 1926.**

" The impulses produced by sensory nerve-endings. Part IV. Impulses from pain receptors **62, 33, 1926.**

| | | |
|---|---|---|
| Adrian E. D. | *and Eckhard, Rachel.* Impulses in the optic nerve. (Preliminary communication) | 62, xxiii, 1927. |
| " | *and Matthews, Rachel.* The action of light on the eye. Part I. The discharge of impulses in the optic nerve and its relation to the electric changes in the retina | 63, 378, 1927. |
| " | *and Matthews, Rachel.* The action of light on the eye. Part II. The processes involved in retinal excitation | 64, 279, 1927. |
| " | *and Matthews, Rachel.* The action of light on the eye. Part III. The interaction of retinal neurones | 65, 273, 1928. |
| " | *and Bronk, D. W.* The discharge of impulses in motor nerve fibres. Part I. Impulses in single fibres of the phrenic nerve | 66, 81, 1928. |
| " | *and Bronk, D. W.* Apparatus for demonstrating nerve and muscle action currents | 66, xiii, 1928. |
| " | *and Bronk, D. W.* The discharge of impulses in motor nerve fibres. Part II. The frequency of discharge in reflex and voluntary contractions | 67, 119, 1929. |
| " | *and Umrath, K.* The impulse discharge from the Pacinian corpuscle | 68, 139, 1929. |
| " | Impulses in sympathetic fibres and in slow afferent fibres | 70, xx, 1930. |
| " | The activity of the nervous system in the caterpillar | 70, xxxiv, 1930. |
| " | *and Buytendijk, F. J. J.* Potential changes in the isolated brain stem of the goldfish | 71, 121, 1931. |
| " | The microphonic action of the cochlea: an interpretation of Wever and Bray's experiments | 71, xxviii, 1931. |
| " | Potential changes in the isolated nervous system of *Dytiscus marginalis* | 72, 132, 1931. |
| " | , *Cattell, McKeen and Hoagland, H.* Sensory discharges in single cutaneous nerve fibres | 72, 377, 1931. |
| " | , *Bronk, D. W. and Phillips, G.* The nervous origin of the Wever and Bray effect | 73, 2*P*, 1931. |
| " | , *Bronk, D. W. and Phillips, G.* Discharges in mammalian sympathetic nerves | 74, 115, 1932. |
| " | Sensory impulses produced by heat and injury | 74, 17*P*, 1932. |
| " | The activity of the optic ganglion of *Dytiscus marginalis* | 75, 26*P*, 1932. |
| " | *and Gelfan, S.* Rhythmic activity in skeletal muscle fibres | 78, 271, 1933. |
| " | Afferent impulses in the vagus and their effect on respiration | 79, 332, 1933. |
| " | *and Matthews, B. H. C.* Observations on the electrical activity of the cortex | 80, 1*P*, 1933. |
| " | *and Matthews, B. H. C.* The interpretation of potential waves in the cortex | 81, 440, 1934. |
| " | Discharge frequencies in the cerebral and cerebellar cortex | 83, 32*P*, 1934. |
| " | The Berger rhythm in the monkey's brain | 87, 83*P*, 1936. |
| " | The spread of activity in the cerebral cortex | 88, 127, 1936. |
| " | Cortical facilitation with electric stimuli | 89, 1*P*, 1936. |
| " | Synchronized reactions in the optic ganglion of *Dytiscus* | 91, 66, 1937. |

| | | |
|---|---|---|
| ADRIAN, E. D. | The effect of sound on the ear in reptiles | 92, 9P, 1938. |
| " | *and Ludwig, C.* Nervous discharges from the olfactory organs of fish | 94, 441, 1938. |
| " | *and Moruzzi, G.* High-frequency discharges from cerebral neurones | 95, 27P, 1939. |
| " | *and Moruzzi, G.* Impulses in the pyramidal tract | 97, 153, 1939. |
| " | Double representation of the feet in the sensory cortex of the cat | 98, 16P, 1940. |
| " | Visual responses in the cat and monkey | 100, 9P, 1941. |
| " | Afferent discharges to the cerebral cortex from peripheral sense organs | 100, 159, 1941. |
| " | Olfactory reactions in the brain of the hedgehog | 100, 459, 1942. |
| AGAR, W. T. | The action of adrenaline upon the uterus of the guinea-pig and its modification by eserine | 98, 492, 1940. |
| AGREN, G. | *and Hammarsten, E.* The behaviour of crystallized secretin when digested with proteolytic enzymes | 90, 330, 1937. |
| " | On the properties of secretin | 94, 553, 1939. |
| AITKEN, R. S. | *and Kay, H. D.* An easily constructed ultra-filter | 62, xxix, 1927. |
| " | *and Clark-Kennedy, A. E.* The concentration of $CO_2$ in successive portions of an expired breath | 64, xvii, 1927. |
| " | *and Clark-Kennedy, A. E.* On the fluctuation in the composition of the alveolar air during the respiratory cycle in muscular exercise | 65, 389, 1928. |
| " | On the renal threshold for chloride in man | 67, 199, 1929. |
| ALAM, M. | *and Smirk, F. H.* Observations in man upon a blood pressure raising reflex arising from the voluntary muscles | 89, 372, 1937. |
| " | *and Smirk, F. H.* Observations in man on a pulse-accelerating reflex from the voluntary muscles of the legs | 92, 167, 1938. |
| " | *, Anrep, G. V., Barcroum, G. S., Talaat, M. and Wieninger, E.* Liberation of histamine from the skeletal muscle by curare | 95, 148, 1939. |
| ALDRICH, MARTHA | *Greene, C. H., —— and Rowntree, L. G.* Studies in the metabolism of the bile acids | 64, vii, 1927. |
| ALFRED, P. | *, Hallpike, C. S. and Ledoux, A.* Observations on the osmotic pressure of the endolymph | 98, 446, 1940. |
| ALLAN, H. | *, Dickens, F. and Dodds, E. C.* Observations on the standardization of the water-soluble, oestrus-producing hormone | 68, 348, 1930. |
| " | *and Wiles, P.* The rôle of the pituitary gland in pregnancy and parturition. I. Hypophysectomy | 75, 23, 1932. |
| ALLANSON, MARJORIE | The reproductive cycle in the male ferret | 71, xx, 1931. |
| ALLEN, A. | *and Ponder, Eric.* The measurement of the diameter of erythrocytes by the diffraction method | 66, 37, 1928. |

| | | |
|---|---|---|
| Allibone, E. C. | *and Tunbridge, R. E.* A study of blood sugar values following the intravenous injection of glucose in man | 95, 4P, 1939. |
| Ambache, N. | *and Barsoum, G. S.* The release of histamine by isolated smooth muscles | 96, 139, 1939. |
| Amberson, W. R. | *and Downing, A. C.* The electric response of nerve to two stimuli | 68, 1, 1929. |
| " | *and Downing, A. C.* On the form of the action potential wave in nerve | 68, 19, 1929. |
| " | The effect of temperature upon the absolute refractory period in nerve | 69, 60, 1930. |
| " | A criticism of the Hill-Hartree method of curve analysis | 69, 67, 1930. |
| Andersen, Dorothy H. | Studies on the physiology of reproduction. I. The effect of thymectomy and of season on the age and weight at puberty in the female rat | 74, 49, 1932. |
| " | Studies on the physiology of reproduction. II. The effect of thymectomy on the age of puberty in the male rat | 74, 207, 1932. |
| " | Studies on the physiology of reproduction. III. The effect of thymectomy on fertility in the rat | 74, 212, 1932. |
| " | *and Kennedy, Helen S.* Studies on the physiology of reproduction. IV. Changes in the adrenal gland of the female rat associated with the oestrous cycle | 76, 247, 1932. |
| " | *and Kennedy, Helen S.* Studies on the physiology of reproduction. V. The adrenal cortex in pregnancy and lactation | 77, 159, 1933. |
| " | *and Kennedy, Helen S.* The effect of gonadectomy on the adrenal, thyroid, and pituitary glands | 79, 1, 1933. |
| " | *and Wolf, A.* Pinealectomy in rats, with a critical survey of the literature | 81, 49, 1934. |
| " | The effect of ovarian hormone on the pituitary, thyroid, and adrenal glands of spayed female rats | 83, 15, 1934. |
| " | The effect of food and of exhaustion on the pituitary, thyroid, adrenal, and thymus glands of the rat | 85, 162, 1935. |
| " | *and Sperry, W. M.* A study of cholesterol in the adrenal gland in different phases of reproduction in the female rat | 90, 296, 1937. |
| Anderson, A. B. | *and Anderson, M. D.* The effect of atropine, ergotamine, and pituitrin on phlorhizin glycosuria | 64, 350, 1928. |
| " | *and Anderson, M. D.* The effect of ergotoxin on phlorhizin glycosuria | 65, 456, 1928. |
| " | *and Oastler, E. G.* The effect of hypophysectomy on the blood calcium and phosphorus of the rat | 92, 124, 1938. |
| Anderson, Evelyn M. | *and Collip, J. B.* Studies on the physiology of the thyreotropic hormone of the anterior pituitary | 82, 11, 1934. |

| | | |
|---|---|---|
| ANDERSON, I. A. | , *Cleghorn, R. A., Macleod, J. J. R. and Peterson, J. M.* The effect of evisceration on the respiratory metabolism of the decerebrate preparation | 71, 391, 1931. |
| ANDERSON, M. D. | *Anderson, A. B. and.* The effect of atropine, ergotamine, and pituitrin on phlorhizin glycosuria | 64, 350, 1928. |
| " | *Anderson, A. B. and.* The effect of ergotoxin on phlorhizin glycosuria | 65, 456, 1928. |
| ANDRÉ, M. | , *Barzin, J., Charlier, R., Doutrebande, L., Demanez, L. and Tawaststjerna, M.* Influence of prolonged and repeated inhalations of carbonic acid on the blood and diuresis | 90, 74P, 1937. |
| ANDREW, B. L. | , *Davidson, J. N. and Garry, R. C.* The absorption of water from the colon of the rat under urethane anaesthesia | 98, 487, 1940. |
| ANDREWS, S. | *and Milroy, J. A.* Sublimation *in vacuo* as a method of separating certain chemical constituents of the body | 70, xi, 1930. |
| ANDREYEV, L. | *and Pugsley, L. I.* The effect of parathyroid hormone and of irradiated ergosterol upon the calcium content of the parotid saliva of the dog | 80, 96, 1933. |
| ANGUS, T. C. | *Campbell, J. Argyll and.* Water evaporated during work | 67, x, 1929. |
| ANNAU, E. | , *St Huszák, Svirbely, J. L. and Szent-Györgyi, A.* The function of the adrenal medulla | 76, 181, 1932. |
| ANREP, G. V. | *and Segall, H. N.* The central and reflex regulation of the heart rate | 61, 215, 1926. |
| " | *and Stacey, R. S.* Comparative effect of various drugs upon the coronary circulation | 64, 187, 1927. |
| " | *and King, B.* The significance of the diastolic and systolic blood-pressures for the maintenance of the coronary circulation | 64, 341, 1928. |
| " | *and Häusler, H.* The coronary circulation. I. The effect of changes of the blood-pressure and of the output of the heart | 65, 357, 1928. |
| " | , *Blalock, A. and Hammouda, M.* The distribution of the blood in the coronary blood vessels | 67, 87, 1929. |
| " | *and Häusler, H.* The coronary circulation. II. The effect of changes of temperature and of heart rate | 67, 299, 1929. |
| " | , *Davis, J. C. and Volhard, E.* The effect of pulse pressure upon the coronary blood flow | 73, 405, 1931. |
| " | *and Samaan, A.* Double vagotomy in relation to respiration | 77, 1, 1932. |
| " | *and Hammouda, M.* Observations on panting | 77, 16, 1932. |
| " | *and Saalfeld, E. v.* The effect of the cardiac contraction upon the coronary flow | 79, 317, 1933. |

| | | |
|---|---|---|
| Anrep, G. V. | *and Sanfield, E. v.* The blood flow through the skeletal muscle in relation to its contraction | 85, 375, 1935. |
| ,, | *and Barsoum, G. S.* Appearance of histamine in the venous blood during muscular contraction | 85, 409, 1935. |
| ,, | *and Barsoum, G. S.* Distribution of histamine between plasma and red blood corpuscles | 85, 36*P*, 1935. |
| ,, | , *Ayadi, M. S. and Talaat, M.* A method for determination of carbon dioxide applicable to blood and tissues | 86, 153, 1936. |
| ,, | , *Barsoum, G. S. and Talaat, M.* Histamine destruction by the kidney | 86, 55*P*, 1936. |
| ,, | , *Barsoum, G. S. and Talaat, M.* Liberation of histamine by the heart muscle | 86, 431, 1936. |
| ,, | *Alam, M.*, ——, *Barsoum, G. S., Talaat, M. and Wieninger, E.* Liberation of histamine from the skeletal muscle by curare | 95, 148, 1939. |
| ,, | , *Barsoum, G. S., Talaat, M. and Wieninger, E.* Determination of histamine in blood | 95, 476, 1939. |
| ,, | , *Barsoum, G. S., Talaat, M. and Wieninger, E.* Effect of clotting and of the addition of histamine on its distribution in blood | 96, 130, 1939. |
| ,, | , *Barsoum, G. S., Talaat, M. and Wieninger, E.* Further observations upon the release of histamine by skeletal muscles | 96, 240, 1939. |
| Apperly, F. L. | *and Norris, Joan H.* The automatic regulation of gastric acidity | 70, 158, 1930. |
| ,, | *and Crabtree, Muriel G.* The relation of gastric function to the chemical composition of the blood | 73, 331, 1931. |
| Arapova, A. A. | , *Gersuni, G. V. and Volokhov, A. A.* A further analysis of the action of alternating currents on the auditory apparatus | 89, 122, 1937. |
| Armstrong, C. W. J. | , *Cleghorn, R. A., Fowler, J. L. A. and McVicar, G. A.* Some effects of stimulation of sympathetic nerves and injection of pressor drugs in adrenalectomized cats | 96, 146, 1939. |
| Armstrong, P. B. | The role of the nerves in the action of acetylcholine on the embryonic heart | 84, 20, 1935. |
| Arning, Dorothy | The lactic acid maximum of cardiac muscle | 63, 107, 1927. |
| Ascroft, P. B. | *and Davies, O. V. Lloyd.* The cause of death in acute intestinal obstruction; the nervous factor | 91, 16*P*, 1937. |
| Asdell, S. A. | *Drummond-Robinson, G. and.* The relation between the corpus luteum and the mammary gland | 61, 608, 1926. |
| Ashcroft, D. W. | *and Hallpike, C. S.* Action potentials in the saccular nerve of the frog | 81, 23*P*, 1934. |
| Athanasiu, I. | The nervous motive energy. Reply to Sybil Cooper and E. D. Adrian | 64, 174, 1927. |
| Attwood, Adela M. P. | *Macfarlane, R. G., Trevan, J. W. and* ——. Participation of a fat soluble substance in coagulation of the blood | 99, 7*P*, 1941. |

| | | |
|---|---|---|
| Auchinachie, D. W. | , *Macleod, J. J. R. and Mapes, H. E.* Studies on diffusion through surviving isolated intestine | 69, 185, 1930. |
| Ayadi, M. S. | *Anrep, G. V., —— and Talaat, M.* A method for determination of carbon dioxide applicable to blood and tissues | 86, 153, 1936. |
| Aykroyd, Olive E. | *and Zuckerman, S.* Factors in sexual-skin oedema | 94, 13, 1938. |
| Aylward, F. X. | *Grieve, W. S. M., Mainwaring, B. R. S. and Wilkinson, J. F.* The haemopoietic activity of mammalian livers | 100, 94, 1941. |
| Azuma, Y. | *Hill, L. and.* Blood pressure in the two-three-day chick embryo | 62, xxvii, 1927. |
| Baar, H. S. | *and Lloyd, T. W.* The life span of the red blood corpuscles and the maturation time of reticulocytes | 98, 12*P*, 1940. |
| „ | *and Hickmans, E. M.* (Introduced by H. P. Gilding.) Alkali denaturation of oxyhaemoglobin, haemoglobin, carbonmonoxydhaemoglobin, methaemoglobin and cyanmethaemoglobin | 100, 3*P*, 1941. |
| „ | *and Hickmans, E. M.* (Introduced by H. P. Gilding.) The bilirubinoid pigments of human faeces | 100, 4*P*, 1941. |
| Babkin, B. P. | *and Starling, E. H.* A method for the study of the perfused pancreas | 61, 245, 1926. |
| Bachman, C. | *and Toby, G.* The responses of normal and hypophysectomized rabbits to adrenaline | 87, 1, 1936. |
| Bacq, Z. M. | (Introduced by H. H. Dale.) The oxidation of adrenaline *in vivo* | 87, 87*P*, 1936. |
| „ | *and Brown, G. L.* Pharmacological experiments on mammalian voluntary muscle, in relation to the theory of chemical transmission | 89, 45, 1937. |
| „ | *and Nachmansohn, D.* Cholinesterase in invertebrate muscles | 89, 368, 1937. |
| „ | *and Fredericq, H.* The action of caffeine and related substances on the effects of autonomic nerve stimulation | 90, 55*P*, 1937. |
| „ | *and Marks, H. P.* Sympathetic stimulation, adrenaline and mobilization of muscle glycogen | 90, 56*P*, 1937. |
| „ | *and Coppée, G.* Effect of preganglionic nerve section on ganglionic transmission | 92, 17*P*, 1938. |
| „ | 'Adrenoxine'; its production from adrenaline and its action | 92, 28*P*, 1938. |
| Bain, W. A. | On the mode of action of vasomotor nerves | 77, 3*P*, 1932. |
| „ | , *Irving, J. T. and McSwiney, B. A.* Visceral afferent fibres | 83, 8*P*, 1934. |
| „ | , *Irving, J. T. and McSwiney, B. A.* Visceral afferent fibres | 83, 28*P*, 1934. |
| „ | , *Irving, J. T. and McSwiney, B. A.* The afferent fibres from the abdomen in the splanchnic nerves | 84, 323, 1935. |
| „ | *and McSwiney, B. A.* A mammalian muscle-nerve preparation | 86, 17*P*, 1935. |

| | | |
|---|---|---|
| Bain, W. A. | The mode of action of vaso-dilator nerves | 86, 33P, 1936. |
| " | *and Suffolk, S. F.* On the inactivation of adrenaline *in vitro* | 86, 34P, 1936. |
| " | , *Gaunt, W. E. and Suffolk, S. F.* The inactivation of adrenaline by blood *in vitro* | 87, 8P, 1936. |
| " | , *Gaunt, W. E. and Suffolk, S. F.* Observations on the inactivation of adrenaline by blood and tissues *in vitro* | 91, 233, 1937. |
| " | *and Dickinson, Sylvia.* On the inactivation of adrenaline by mammalian liver *in vitro* | 93, 54P, 1938. |
| Baldes, E. J. | *and Smirk, F. H.* The effect of water drinking, mineral starvation and salt administration on the total osmotic pressure of the blood in man, chiefly in relation to the problems of water absorption and water diuresis | 82, 62, 1934. |
| Baldwin, E. | *and Needham, Dorothy Moyle.* The phosphorus distribution in resting fly muscle | 80, 221, 1933. |
| Banerji, H. | *and Reid, C.* The adrenals and anaesthetic hyperglycaemia | 78, 370, 1933. |
| " | *and Reid, C.* The adrenals and glucose tolerance | 81, 93, 1934. |
| Barclay, A. E. | , *Franklin, K. J. and Macbeth, R. G.* A contribution to the study of ciliary movement | 90, 347, 1937. |
| " | *and Franklin, K. J.* Reflexes from the bladder and large intestine | 90, 478, 1937. |
| " | *and Franklin, K. J.* The rate of excretion of Indian ink, injected into the lungs | 90, 482, 1937. |
| " | , *Barcroft, J., Barron, D. H. and Franklin, K. J.* Closing of ductus arteriosus | 93, 36P, 1938. |
| " | *and Franklin, K. J.* The time of functional closure of the foramen ovale in the lamb | 94, 256, 1938. |
| Barcroft, H. | A source of error in measurement of the circulation rate by Henderson and Haggard's method | 63, 162, 1927. |
| " | A mechanical stromuhr | 67, 402, 1929. |
| " | Cardiac output and blood distribution | 71, 280, 1931. |
| " | Properties of the peripheral vascular system and their relation to the systemic output | 72, 186, 1931. |
| " | A study of the influence of adrenaline on the systemic blood flow | 76, 339, 1932. |
| " | Observations on the pumping action of the heart | 78, 186, 1933. |
| " | *and Formijne, P.* The relation of the central nervous system to the increase in systemic flow produced by occlusion of the thoracic aorta | 82, 377, 1934. |
| " | Safety device for the Haldane gas analysis apparatus | 84, 23P, 1935. |
| " | *and Samaan, A.* The explanation of the increase in systemic flow caused by occluding the descending thoracic aorta | 85, 47, 1935. |
| " | *and Loughridge, W. M.* On the accuracy of the thermostromuhr method for measuring blood flow | 93, 382, 1938. |
| " | *and Millen, J. L. E.* The blood flow through muscle during sustained contraction | 97, 17, 1939. |

| | | |
|---|---|---|
| Barcroft, J. | *and Stephens, J. G.* Observations upon the size of the spleen | 64, 1, 1927. |
| ,, | *and Poole, L. T.* The blood in the spleen pulp | 64, 23, 1927. |
| ,, | *and Stevens, J. G.* The effect of pregnancy and menstruation on the size of the spleen | 66, 32, 1928. |
| ,, | *and Florey, H. W.* Some factors involved in the concentration of blood by the spleen | 66, 231, 1928. |
| ,, | *Abeloos, M., ——, Cordero, N., Harrison, T. R. and Sendroy, J.* The measurement of the oxygen capacity of haemoglobin | 66, 262, 1928. |
| ,, | *and Robinson, C. S.* A study of some factors influencing intestinal movements | 67, 211, 1929. |
| ,, | *and Florey, H.* The effects of exercise on the vascular conditions in the spleen and the colon | 68, 181, 1929. |
| ,, | Some effects of emotion on the volume of the spleen | 68, 375, 1930. |
| ,, | *and Izquierdo, J. J.* The relation of temperature to the pulse rate of the frog | 71, 145, 1931. |
| ,, | *and Izquierdo, J. J.* The effect of temperature on the frequency of heart and respiration in the guinea-pig and cat | 71, 364, 1931. |
| ,, | *and Verzár, F.* The effect of exposure to cold on the pulse rate and respiration of man | 71, 373, 1931. |
| ,, | *and Margaria, R.* Some effects of carbonic acid on the character of human respiration | 72, 175, 1931. |
| ,, | , *Benatt, A., Gresson, C. E. and Nisimaru, Y.* The rate of blood flow through cyanosed skin | 73, 344, 1931. |
| ,, | , *Nisimaru, Y. and Ray, G. B.* Observations on the time taken for corpuscles to traverse the liver | 74, 44, 1932. |
| ,, | *and Margaria, R.* Some effects of carbonic acid in high concentration on respiration | 74, 156, 1932. |
| ,, | , *Khanna, L. C. and Nisimaru, Y.* Rhythmical contraction of the spleen | 74, 294, 1932. |
| ,, | *and Nisimaru, Y.* Cause of rhythmical contraction of the spleen | 74, 299, 1932. |
| ,, | *and Nisimaru, Y.* Undulatory changes of blood-pressure | 74, 311, 1932. |
| ,, | , *Nisimaru, Y. and Puri, S. R.* The action of the splanchnic nerves on the spleen | 74, 321, 1932. |
| ,, | , *Nisimaru, Y. and Steggerda, F. R.* The effects of intestinal rhythm on general blood-pressure | 74, 490, 1932. |
| ,, | The effect of some accidental lesions on the size of the spleen | 76, 436, 1932. |
| ,, | Alterations in the size of the denervated spleen related to pregnancy | 76, 443, 1932. |
| ,, | *and Rothschild, P.* The volume of blood in the uterus during pregnancy | 76, 447, 1932. |
| ,, | *and Steggerda, F. R.* Observations on the proximal portion of the exteriorized colon | 76, 460, 1932. |
| ,, | , *Herkel, W., and Hill, S.* The rate of blood flow and gaseous metabolism of the uterus during pregnancy | 77, 194, 1933. |
| ,, | Some forms of apparatus for the equilibration of blood | 80, 388, 1934. |

| | | |
|---|---|---|
| Barcroft, J. | , *Elliott, R. H. E., Fraser, F. R., Herkel, W., Matthews, B. H. C. and Talaat, M.* A case of deficient acclimatization to low oxygen pressure | 82, 389, 1934. |
| ,, | , *Flexner, L. B. and McClurkin, T.* The output of the foetal heart in the goat | 82, 498, 1934. |
| ,, | , *Elliott, R. H. E., Flexner, L. B., Hall, F. G., Herkel, W., McCarthy, E. F., McClurkin, T. and Talaat, M.* Conditions of foetal respiration in the goat | 83, 192, 1934. |
| ,, | , *Flexner, L. B., Herkel, W., McCarthy, E. F. and McClurkin, T.* The utilisation of oxygen by the uterus in the rabbit | 83, 215, 1934. |
| ,, | , *Barron, D. H. and Matthews, B. H. C.* The genesis of respiratory movements in the sheep | 86, 29P, 1936. |
| ,, | , *Barron, D. H. and Windle, W. F.* Some observations on genesis of somatic movements in sheep embryos | 87, 73, 1936. |
| ,, | *and Elliott, R. H. E.* Some observations on the denervated spleen | 87, 189, 1936. |
| ,, | *Adair, G. S., ——, Barron, D. H., Goodman, E. N., Hall, E. H., Hayasi, K., O'Brien, A., Pace, J. F. and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37P, 1936. |
| ,, | *and Barron, D. H.* The genesis of respiratory movements in the foetus of the sheep | 88, 56, 1936. |
| ,, | *and Barron, D. H.* The development of the 'righting' movements in the foetal sheep | 89, 19P, 1936. |
| ,, | *and Barron, D. H.* Experimental 'chronic' lesions in the central nervous system of the sheep's foetus | 89, 55P, 1937. |
| ,, | *and Gotsen, T.* Acquisition of blood by the foetus from the placenta at birth | 90, 27P, 1937. |
| ,, | , *Kramer, K. and Millikan, G. A.* The attainment of saturation by the arterial blood at birth | 90, 28P, 1937. |
| ,, | , *Barron, D. H., Kramer, K. and Millikan, G. A.* The effect of urethane on the onset of respiration at birth | 90, 29P, 1937. |
| ,, | *and Barron, D. H.* Movements in mid-foetal life in the sheep embryo | 91, 329, 1937. |
| ,, | , *Kennedy, J. A. and Mason, M. F.* The relation of the vagus nerve to the ductus arteriosus in the guinea-pig | 92, 1P, 1938. |
| ,, | *Mason, M. F., Kennedy, J. A. and.* Direct determination of foetal oxygen consumption | 93, 21P, 1938. |
| ,, | *and Mason, M. F.* The atmosphere in which the foetus lives | 93, 22P, 1938. |
| ,, | *Barron, D. H. and.* A case of amputation of leg, 90 days before birth | 93, 29P, 1938. |
| ,, | *Barclay, A. E., ——, Barron, D. H. and Franklin, K. J.* Closing of ductus arteriosus | 93, 36P, 1938. |
| ,, | , *Kramer, K. and Millikan, G. A.* The oxygen in the carotid blood at birth | 94, 571, 1939. |

| | | |
|---|---|---|
| Barcroft, J. | , *Kennedy, J. A. and Mason, M. F.* The blood volume and kindred properties in pregnant sheep | 95, 159, 1939. |
| ,, | *and Kennedy, J. A.* The distribution of blood between the foetus and the placenta in sheep | 95, 173, 1939. |
| ,, | , *Kennedy, J. A. and Mason, M. F.* The direct determination of the oxygen consumption of the foetal sheep | 95, 289, 1939. |
| ,, | , *Barron, D. H., Cowie, A. T., Forsham, P. H. and MacDonald, A.* The effect of asphyxia on inhibition of respiratory movement in the sheep's foetus | 96, 12*P*, 1939. |
| ,, | , *Barron, D. H., Cowie, A. T. and Forsham, P. H.* The oxygen supply of the foetal brain of the sheep and the effect of asphyxia on foetal respiratory movement | 97, 338, 1940. |
| ,, | , *Kennedy, J. A. and Mason, M. F.* Oxygen in the blood of the umbilical vessels of the sheep | 97, 347, 1940. |
| ,, | *and Barron, D. H.* Circulation in the placenta of the sheep | 100, 20*P*, 1942. |
| Barker, S. B. | Effects of increased metabolism on ketosis of depancreatized dogs | 97, 394, 1940. |
| Barnes, H. | , *O'Brien, J. R. and Reader, V. B.* Crystalline preparations with vitamin $B_6$ activity | 76, 8*P*, 1932. |
| Barnes, T. Cunliffe | Sensory impulses in crustacean nerve | 69, xxxii, 1930. |
| ,, | Peripheral tonus associated with impulse discharges in crustacean nerve | 70, xxiv, 1930. |
| ,, | Impulses in crustacean nerve associated with pressure stimulation | 71, xii, 1931. |
| Barnett, A. | The phase angle of normal human skin | 93, 349, 1938. |
| Barratt, J. O. W. | The action of hirudin upon thrombin | 64, 47, 1927. |
| ,, | Deterioration of fibrinogen and thrombin | 75, 428, 1932. |
| ,, | Estimation of fibrinogen and thrombin | 80, 422, 1934. |
| ,, | The action of anticoagulants | 90, 377, 1937. |
| Barrett, H. M. | , *Best, C. H. and Ridout, Jessie, H.* A study of the source of liver fat using deuterium as an indicator | 93, 367, 1938. |
| ,, | , *Best, C. H., MacLean, D. L. and Ridout, Jessie H.* The effect of choline on the fatty liver of carbon tetrachloride poisoning | 97, 103, 1939. |
| Barrett, J. F. B. | *and Wilson, A. T.* Liver fat and blood determinations after adrenalectomy | 81, 43*P*, 1934. |
| Barrington, E. J. W. | The influence of secretin on pancreatic secretion in the cat | 100, 80, 1941. |
| Barron, D. H. | *and Matthews, B. H. C.* Dorsal root fibres | 83, 5*P*, 1934. |
| ,, | *and Matthews, B. H. C.* Conduction in the spinal cord | 84, 9*P*, 1935. |
| ,, | *and Matthews, B. H. C.* Intermittent conduction in the spinal cord | 85, 73, 1935. |
| ,, | *and Matthews, B. H. C.* 'Recurrent fibres' of the dorsal roots | 85, 104, 1935. |
| ,, | *Barcroft, J., —— and Matthews, B. H. C.* The genesis of respiratory movements in the sheep | 86, 29*P*, 1936. |

| | | |
|---|---|---|
| Barron, D. H. | *and Matthews, B. H. C.* Electrotonic conduction of the potentials of grey matter | 86, 29*P*, 1936. |
| ,, | *Barcroft, J., —— and Windle, W. F.* Some observations on genesis of somatic movements in sheep embryos | 87, 73, 1936. |
| ,, | *and Matthews, B. H. C.* Electrotonus in ventral roots of the spinal cord | 87, 26*P*, 1936. |
| ,, | *Adair, G. S., Barcroft, J., ——, Goodman, E. N., Hall, E. H., Hayasi, K., O'Brien, A., Pace, J. F. and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37*P*, 1936. |
| ,, | *Barcroft, J. and.* The genesis of respiratory movements in the foetus of the sheep | 88, 56, 1936. |
| ,, | *Barcroft, J. and.* The development of the 'righting' movements in the foetal sheep | 89, 19*P*, 1936. |
| ,, | *Barcroft, J. and.* Experimental 'chronic' lesions in the central nervous system of the sheep's foetus | 89, 55*P*, 1937. |
| ,, | *Barcroft, J., ——, Kramer, K. and Millikan, G. A.* The effect of urethane on the onset of respiration at birth | 90, 29*P*, 1937. |
| ,, | *and Thomson, Irene F. A.* The cervical extension of the solitary tract | 90, 29*P*, 1937. |
| ,, | *Barcroft, J. and.* Movements in mid-foetal life in the sheep embryo | 91, 329, 1937. |
| ,, | *and Matthews, B. H. C.* The interpretation of potential changes in the spinal cord | 92, 276, 1938. |
| ,, | *and Barcroft, J.* A case of amputation of leg, 90 days before birth | 93, 29*P*, 1938. |
| ,, | *Barclay, A. E., Barcroft, J., —— and Franklin, K. J.* Closing of ductus arteriosus | 93, 36*P*, 1938. |
| ,, | *and Matthews, B. H. C.* Dorsal root reflexes | 94, 26*P*, 1938. |
| ,, | *and Matthews, B. H. C.* Dorsal root potentials | 94, 27*P*, 1938. |
| ,, | *Barcroft, J., ——, Cowie, A. T., Forsham, P. H. and MacDonald, A.* The effect of asphyxia on inhibition of respiratory movement in the sheep's foetus | 96, 12*P*, 1939. |
| ,, | *Barcroft, J., ——, Cowie, A. T. and Forsham, P. H.* The oxygen supply of the foetal brain of the sheep and the effect of asphyxia on foetal respiratory movement | 97, 338, 1940. |
| ,, | *Barcroft, J. and.* Circulation in the placenta of the sheep | 100, 20*P*, 1942. |
| Barry, D. T. | *and Torrens, D. S.* On the regeneration of blood after haemorrhage | 62, 192, 1926. |
| ,, | *and Freud, J.* Toxaemia from liver grafting | 62, xxii, 1927. |
| ,, | The functions of the great splanchnic nerves | 75, 480, 1932. |
| ,, | The course of cardiac nerve fibres in the pulmonary plexuses | 84, 263, 1935. |
| Barsoum, G. S. | , *Gaddum, J. H. and Khayyal, M. A.* The liberation of a choline ester in the inferior mesenteric ganglion | 82, 9*P*, 1934. |
| ,, | The acetylcholine equivalent of nervous tissues | 84, 259, 1935. |
| ,, | *and Gaddum, J. H.* The pharmacological estimation of adenosine and histamine in blood | 85, 1, 1935. |

| | | |
|---|---|---|
| Barsoum, G. S. | *and Gaddum, J. H.* The liberation of histamine during reactive hyperaemia | 85, 13*P*, 1935. |
| " | *Anrep, G. V. and.* Appearance of histamine in the venous blood during muscular contraction | 85, 409, 1935. |
| " | *Anrep, G. V. and.* Distribution of histamine between plasma and red blood corpuscles | 85, 36*P*, 1935. |
| " | *Anrep, G. V.,* —— *and Talaat, M.* Histamine destruction by the kidney | 86, 55*P*, 1936. |
| " | *Anrep, G. V.,* —— *and Talaat, M.* Liberation of histamine by the heart muscle | 86, 431, 1936. |
| " | *Alam, M., Anrep, G. V.,* ——, *Talaat, M. and Wieninger, E.* Liberation of histamine from the skeletal muscle by curare | 95, 148, 1939. |
| " | *Anrep, G. V.,* ——, *Talaat, M. and Wieninger, E.* Determination of histamine in blood | 95, 476, 1939. |
| " | *Anrep, G. V.,* ——, *Talaat, M. and Wieninger, E.* Effect of clotting and of the addition of histamine on its distribution in blood | 96, 130, 1939. |
| " | *Ambache, N. and.* The release of histamine by isolated smooth muscles | 96, 139, 1939. |
| " | *Anrep, G. V.,* ——, *Talaat, M. and Wieninger, E.* Further observations upon the release of histamine by skeletal muscles | 96, 240, 1939. |
| Barzin, J. | *André, M.,* ——, *Charlier, R., Dautrebande, L., Demanez, L. and Tawaststjerna, M.* Influence of prolonged and repeated inhalations of carbonic acid on the blood and diuresis | 90, 74*P*, 1937. |
| Bateman, J. B. | A note on the heat production of blood | 71, xviii, 1931. |
| " | *and Keys, A.* Chloride and vapour-pressure relations in the secretory activity of the gills of the eel | 75, 226, 1932. |
| " | *and Keys, A.* Respiration of isolated gill tissue of the eel | 77, 271, 1933. |
| " | , *Harris, D. T., May, E. and Rosenberg, H.* The ultra-high frequency conductivity of tissues | 89, 28*P*, 1937. |
| Battis, M. A. | *and McDowall, R. J. S.* The effect of alkali on blood sugar | 62, xxxiii, 1927. |
| Bauer, D. J. | The slowing of heart rate produced by clamping the umbilical cord in the foetal sheep | 90, 25*P*, 1937. |
| " | The effect of asphyxia upon the heart rate of rabbits at different ages | 93, 90, 1938. |
| " | Vagal reflexes appearing in asphyxia in rabbits at different ages | 95, 187, 1939. |
| Bauer, W. | *and Richards, D. W., Jr.* A vaso-dilator action of acetates | 66, 371, 1928. |
| " | , *Dale, H. H., Poulsson, L. T. and Richards, D. W.* The control of circulation through the liver | 74, 343, 1932. |
| Bayless, F. | *and Heymans, C.* Pressoreceptor vaso-motor reflexes from the carotid sinus in conscious dogs and in animals under chloralosane or morphine-pernoctone anaesthesia | 90, 58*P*, 1937. |

| | | |
|---|---|---|
| Bayliss, L. E. | , *Kerridge, Phyllis Tookey and Verney, Ruth Conway.* The determination of the hydrogen-ion concentration of the blood | 61, 448, 1926. |
| „ | , *Müller, E. A. and Starling, E. H.* The action of insulin and sugar on the respiratory quotient and metabolism of the heart-lung preparation | 65, 33, 1928. |
| „ | The energetics of plain muscle | 65, I, 1928. |
| „ | , *Fee, A. R. and Ogden, E.* A method of oxygenating blood | 66, 443, 1928. |
| „ | *and Fee, A. R.* A combined flow recorder and pump control | 69, V, 1929. |
| „ | *and Fee, A. R.* Studies on water diuresis. Part III. A comparison of the excretion of urine by innervated and denervated kidneys perfused with the heart-lung preparation | 69, 135, 1930. |
| „ | *and the late Fee, A. R.* Studies in water diuresis. Part IV. The changes in the concentration of electrolytes and colloids in the plasma of decerebrate dogs produced by the ingestion of water | 70, 60, 1930. |
| „ | *and Lundsgaard, E.* The action of cyanide on the isolated mammalian kidney | 74, 279, 1932. |
| „ | , *Kerridge, Phyllis M. Tookey and Russell, Dorothy S.* The excretion of protein by the mammalian kidney | 77, 386, 1933. |
| „ | *and Ogden, E.* 'Vaso-tonins' and the pump-oxygenator-kidney preparation | 77, 34P, 1933. |
| „ | , *Cowan, S. L. and Scott, D., Jr.* The action potentials in *Maia* nerve before and after poisoning with veratrine and yohimbine hydrochlorides | 83, 439, 1935. |
| „ | A drop recorder for A.C. mains | 84, 57P, 1935. |
| „ | *and Eggleton, P.* A stimulation unit for A.C. mains | 84, 58P, 1935. |
| „ | A circulation model | 97, 429, 1940. |
| „ | *and Brown, A.* The part played by the renal nerves in the production of water diuresis in the hypophysectomized and decerebrate dog | 98, 190, 1940. |
| Barratt, H. C. | *and McGlone, B.* The effect of temperature on the acidity of the skin | 64, 393, 1928. |
| „ | , *McGlone, B. and Brocklehurst, R. J.* The temperatures in the tissues which accompany temperature sensations | 69, 88, 1930. |
| Bean, J. W. | Effects of high oxygen pressure on carbon dioxide transport, on blood and tissue acidity, and on oxygen consumption and pulmonary ventilation | 72, 27, 1931. |
| „ | *and Rottschafer, G.* Reflexogenic and central structures in oxygen poisoning | 94, 294, 1938. |
| Beattie, Florence | *and Milroy, T. H.* The rôle of the phosphates in carbohydrate metabolism in skeletal muscle. Part II. A comparison between the muscles of normal, fatigued and depancreatized animals | 62, 174, 1926. |

| | | |
|---|---|---|
| Beattie, Florence | , *Beattie, Myra K. and Milroy, T. H.* The effects produced by unilateral lumbar sympathectomy. II. Muscle metabolism | 69, 364, 1930. |
| Beattie, J. | *and Sheehan, D.* The effects of hypothalamic stimulation on gastric motility | 81, 218, 1934. |
| Beattie, Myra K. | , *Bell, J. and Milroy, T. H.* The enzymic processes in mammalian skeletal muscle | 65, 109, 1928. |
| " | *Beattie, Florence, —— and Milroy, T. H.* The effects produced by unilateral lumbar sympathectomy. II. Muscle metabolism | 69, 364, 1930. |
| Bedford, T. | *Vernon, H. M., —— and Warner, C. G.* The influence of various systems of artificial heating on skin temperature | 66, viii, 1928. |
| " | Body heat loss by radiation and convection in relation to room temperature | 84, 17*P*, 1935. |
| Bedford, T. H. B. | The effect of the subarachnoid administration of histamine on the rate of absorption of isotonic saline solution in the dog | 93, 423, 1938. |
| " | The effect of variations in carbon-dioxide tension on the rate of absorption of saline solution from the subarachnoid space | 95, 373, 1939. |
| " | The effect of monosaccharides on water absorption from the subarachnoid space | 96, 392, 1939. |
| " | The effect of mono-iodoacetic acid on the absorption of water from glucose solutions in the subarachnoid space | 98, 185, 1940. |
| " | The effect of ether on the rate of absorption of normal saline solution from the subarachnoid space | 99, 487, 1941. |
| Bělehrádek, J. | *and Huxley, J. S.* Changes in oxygen consumption during metamorphosis induced by thyroid administration in the axolotl | 64, 267, 1927. |
| Bell, D. J. | , *Horne, E. A. and Magee, H. E.* The decerebrate rat | 78, 196, 1933. |
| Bell, G. H. | *and Garry, R. C.* A convenient valve method of eliminating the 'make' shock of induction coils | 72, 14*P*, 1931. |
| " | *and Morris, S.* The oxytocic property of the blood of the cow | 81, 63, 1934. |
| " | *and Robson, J. M.* Oxytocic properties of blood extracts and their physiological significance | 84, 351, 1935. |
| " | *and Robson, J. M.* Activity of the guinea-pig uterus under the influence of ovarian and gonadotropic hormones | 87, 3*P*, 1936. |
| " | *and Robson, J. M.* The effect of certain hormones on the activity of the uterine muscle of the guinea-pig | 88, 312, 1936. |
| " | *and Robson, J. M.* The effect of certain hormones on the activity of the uterine muscle of the mouse | 92, 131, 1938. |
| " | *and Knox, J. A. C.* Recording of pulse rate during exercise | 93, 36*P*, 1938. |
| " | The movements of the unloaded rabbit uterus | 95, 8*P*, 1939. |
| " | *and Weir, J. B. de V.* A general purpose speedometer | 96, 31*P*, 1939. |

| | | |
|---|---|---|
| Bell, G. H. | The movements of the unloaded uterus | 99, 352, 1941. |
| " | *Adler, J., —— and Knox, J. A. C.* An optical device for recording small changes of pressure or volume | 100, 12P, 1941. |
| " | The behaviour of the pregnant uterus of the guinea-pig | 100, 263, 1941. |
| " | *Cuthbertson, D. P. and Orr, J.* Strength and size of bone in relation to calcium intake | 100, 299, 1941. |
| Bell, J. | *Beattie, Myra K., —— and Milroy, T. H.* The enzymic processes in mammalian skeletal muscle | 65, 109, 1928. |
| Bell, J. R. | , *Clark, A. M. and Cuthbertson, D. P.* Experimental traumatic shock | 92, 361, 1938. |
| Bell, Muriel E. | Albuminuria in the normal male rat | 79, 191, 1933. |
| Bellerby, C. W. | *Parkes, A. S. and.* Studies on the internal secretions of the ovary. I. The distribution in the ovary of the oestrus-producing hormone | 61, 562, 1926. |
| " | *Parkes, A. S. and.* Studies on the internal secretions of the ovary. II. The effects of injection of the oestrus-producing hormone during pregnancy | 62, 145, 1926. |
| " | *Parkes, A. S. and.* Studies on the internal secretions of the ovary. III. The effects of injection of oestrin during lactation | 62, 301, 1927. |
| " | *Parkes, A. S. and.* Studies on the internal secretions of the ovary. IV. The significance of the occurrence of oestrin in the placenta | 62, 385, 1927. |
| " | *Parkes, A. S. and.* Studies on the internal secretions of the ovary. V. The oestrus-inhibiting function of the corpus luteum | 64, 233, 1927. |
| " | The physiological properties of anterior lobe pituitary extract in relation to the ovary | 67, xxxii, 1929. |
| " | The relation of the anterior lobe of the pituitary to ovulation | 67, xxxiii, 1929. |
| " | *Innes, J. R. M. and.* Spontaneous deciduomata in the rat | 67, xxxiv, 1929. |
| Benatt, A. | *Barcroft, J., ——, Gresson, C. E. and Nisimaru, Y.* The rate of blood flow through cyanosed skin | 73, 344, 1931. |
| Benham, G. H. | , *Dawson, H. and Duke-Elder, W. S.* The total osmotic concentrations in serum and aqueous humour | 89, 61, 1937. |
| " | , *Duke-Elder, W. S. and Hodgson, T. H.* The osmotic pressure of the aqueous humour in the normal and glaucomatous eye | 92, 355, 1938. |
| Bennet, D. W. | *and Drury, A. N.* Further observations relating to the physiological activity of adenine compounds | 72, 288, 1931. |
| Beresina, Mary | The resting heat production of nerve | 76, 170, 1932. |
| " | *and Feng, T. P.* The heat production of crustacean nerve | 77, 111, 1933. |
| Best, C. H. | , *Dale, H. H., Dudley, H. W. and Thorpe, W. V.* The nature of the vaso-dilator constituents of certain tissue extracts | 62, 397, 1927. |

| | | |
|---|---|---|
| Best, C. H. | The disappearance of histamine from autolysing lung tissue | 67, 256, 1929. |
| " | *and McHenry, E. W.* The inactivation of histamine | 70, 349, 1930. |
| " | *and Hershey, J. M.* Further observations on the effects of some component of crude lecithine on depancreatized animals | 75, 49, 1932. |
| " | , *Hershey, J. M. and Huntsman, M. Elinor.* The effect of lecithine on fat deposition in the liver of the normal rat | 75, 56, 1932. |
| " | *and Huntsman, M. Elinor.* The effects of the components of lecithine upon deposition of fat in the liver | 75, 405, 1932. |
| " | *and Ridout, Jessie H.* The effects of cholesterol and choline on deposition of liver fat | 78, 415, 1933. |
| " | , *Ferguson, G. C. and Hershey, J. M.* Choline and liver fat in diabetic dogs | 79, 94, 1933. |
| " | , *Channon, H. J. and Ridout, Jessie H.* Choline and the dietary production of fatty livers | 81, 409, 1934. |
| " | *and Huntsman, M. Elinor.* The effect of choline on the liver fat of rats in various states of nutrition | 83, 255, 1935. |
| " | , *Maclean, D. L. and Ridout, Jessie H.* Choline and liver fat in phosphorus poisoning | 83, 275, 1935. |
| " | *and Ridout, Jessie H.* Choline and the fatty liver produced by feeding cholesterol | 84, 7*P*, 1935. |
| " | , *Huntsman, M. Elinor, McHenry, E. W. and Ridout, Jessie H.* The effects of diets low in choline | 84, 38*P*, 1935. |
| " | , *Huntsman, M. Elinor and Young, F. G.* The effect of diets low in choline, and of choline feeding, on the glycosuria of the depancreatized dog | 85, 8*P*, 1935. |
| " | *and Campbell, J.* Anterior pituitary extracts and liver fat | 86, 190, 1936. |
| " | , *Mawson, M. Elinor Huntsman, McHenry, E. W. and Ridout, Jessie H.* The effect of diets low in choline | 86, 315, 1936. |
| " | , *Grant, Rhoda and Ridout, Jessie H.* The 'lipotropic' effect of dietary protein | 86, 337, 1936. |
| " | *and Ridout, Jessie H.* The effects of cholesterol and choline on liver fat | 86, 343, 1936. |
| " | *and Ridout, Jessie H.* Dietary casein and cholesteryl esters in liver | 87, 55*P*, 1936. |
| " | , *Cowan, C. and Maclean, D. L.* Heparin and the formation of white thrombi | 92, 20, 1938. |
| " | *and Campbell, J.* The effect of anterior pituitary extracts on the liver fat of various animals | 92, 91, 1938. |
| " | *Barrett, H. M.*, —— *and Ridout, Jessie H.* A study of the source of liver fat using deuterium as an indicator | 93, 367, 1938. |
| " | *and Ridout, Jessie H.* Undernutrition and liver fat | 94, 47, 1938. |
| " | *Barrett, H. M.*, ——, *MacLean, D. L. and Ridout, Jessie H.* The effect of choline on the fatty liver of carbon tetrachloride poisoning | 97, 103, 1939. |

| | | |
|---|---|---|
| Best, C. H. | , *Haist, R. E. and Ridout, Jessie H.* Diet and the insulin content of pancreas | 97, 107, 1939. |
| ,, | , *Campbell, J. and Haist, R. E.* The effect of anterior pituitary extracts on the insulin content of the pancreas | 97, 200, 1939. |
| ,, | *and Ridout, Jessie H.* The lipotropic action of methionine | 97, 489, 1940. |
| ,, | *and Haist, R. E.* The effect of insulin administration on the insulin content of the pancreas | 100, 142, 1941. |
| Beznák, A. B. L. | On the mechanism of the autacoid function of parasympathetic nerves | 82, 129, 1934. |
| Bhatia, B. B. | *and Burn, J. H.* Action of ether on the sympathetic system | 77, 30*P*, 1932. |
| ,, | *and Burn, J. H.* The action of ether on the sympathetic system | 78, 257, 1933. |
| Biasotti, A. | *and Houssay, B. A.* Phlorrhizin diabetes in fasting or fed hypophysectomized dogs | 77, 81, 1932. |
| Bickford, R. G. | *and Winton, F. R.* The influence of temperature on the isolated mammalian kidney | 78, 14*P*, 1933. |
| ,, | *and Winton, F. R.* The influence of temperature on the isolated kidney of the dog | 89, 198, 1937. |
| Birkett, A. N. | *and Lamb, F. W.* Balance of ocular muscles in normal subjects | 65, ix, 1928. |
| Bjurstedt, H. | *and Euler, U. S. v.* Effect of a tetanus and adrenaline on single muscle twitches after adrenalectomy | 95, 19*P*, 1939. |
| Black, D. A. K. | , *Powell, J. F. and Smith, A. F.* Inulin and perabrodil clearance after alimentary haemorrhage in man | 99, 344, 1941. |
| Black, P. T. | , *Collip, J. B. and Thomson, D. L.* The effect of anterior pituitary extracts on acetone body excretion in the rat | 82, 385, 1934. |
| ,, | The anti-ketogenic substance and phlorhizin diabetes | 84, 15, 1935. |
| Blackwood, Janet H. | *and Wishart, G. M.* The effect of salivary activity on the composition of bovine blood | 86, 37, 1936. |
| Blair, D. M. | *and McDowall, R. J. S.* A cortical flexor rigidity | 71, ix, 1931. |
| Blalock, A. | *Anrep, G. V.*, —— *and Hammouda, M.* The distribution of the blood in the coronary blood vessels | 67, 87, 1929. |
| Blaschko, H. | The delayed anaerobic heat production of stimulated muscle | 70, 96, 1930. |
| ,, | , *Cattell, McKeen and Kahn, J. L.* On the nature of the two types of response in the neuromuscular system of the crustacean claw | 73, 25, 1931. |
| ,, | Cell respiration and catalase activity | 84, 52*P*, 1935. |
| ,, | *and Schlossmann, H.* Adrenaline oxidation and sympathin | 87, 7*P*, 1936. |
| ,, | , *Richter, D. and Schlossmann, H.* Adrenaline oxidase | 89, 6*P*, 1936. |
| ,, | , *Richter, D. and Schlossmann, H.* Biological oxidation of adrenaline derivatives | 89, 39*P*, 1937. |

| | | |
|---|---|---|
| Blaschko, H. | , *Richter, D. and Schlossmann, H.* The inactivation of adrenaline | 90, 1, 1937. |
| " | , *Richter, D. and Schlossmann, H.* Enzymic oxidation of amines | 91, 13*P*, 1937. |
| " | *and Schlossmann, H.* Effect of temperature on the response of the gut to adrenaline | 92, 26*P*, 1938. |
| " | Amine oxidase and ephedrine | 93, 7*P*, 1938. |
| " | *and Schlossmann, H.* The inactivation of adrenaline by catechol oxidase *in vitro* | 94, 19*P*, 1938. |
| " | Amine oxidase and diamines. The action of guanidine | 95, 30*P*, 1939. |
| " | The specific action of *l*-dopa decarboxylase | 96, 50*P*, 1939. |
| " | *and Schlossmann, H.* The inactivation of adrenaline by phenolases | 98, 130, 1940. |
| " | Amine oxidase in *Sepia officinalis* | 99, 364, 1941. |
| Blende, J. de | , *Bouckaert, J. P., Capellen, L. and.* The visco-elastic properties of frog's muscles | 69, 473, 1930. |
| Blyth, J. S. S. | , *Dodds, E. C. and Gallimore, E. J.* Observations on the assay of the comb-growth promoting hormone | 73, 136, 1931. |
| Bock, A. V. | , *Dill, D. B. and Talbott, J. H.* Studies in muscular activity. I. Determination of the rate of circulation of blood in man at work | 66, 121, 1928. |
| " | , *Vancaulaert, C., Dill, D. B., Fölling, A. and Hurxthal, L. M.* Studies in muscular activity. III. Dynamical changes occurring in man at work | 66, 136, 1928. |
| " | , *Vancaulaert, C., Dill, D. B., Fölling, A. and Hurxthal, L. M.* Studies in muscular activity. IV. The 'steady state' and the respiratory quotient during work | 66, 162, 1928 |
| " | , *Dill, D. B., Edwards, H. T., Henderson, L. J. and Talbot, J. H.* On the partial pressures of oxygen and carbon dioxide in arterial blood and alveolar air | 68, 277, 1929. |
| Bodo, R. | *and Marks, H. P.* The action of insulin on the aseptically perfused heart | 63, 242, 1927. |
| " | The effect of the 'heart tonics' and other drugs upon the heart-tone and coronary circulation | 64, 365, 1928. |
| " | *and Marks, H. P.* The action of insulin on the perfused mammalian liver | 65, 48, 1928. |
| " | *and Marks, H. P.* The relation of synthalin to carbohydrate metabolism | 65, 83, 1928. |
| Bogaert, R. | On the sedimentation rate of maternal and neonatal blood | 90, 67*P*, 1937. |
| " | On the antihaemolytic action of normal serum | 90, 68*P*, 1937. |
| Bogue, J. Yule | *and Mendez, R.* The mechanical and electrical response of the frog's heart | 67, xxxi, 1929. |
| " | *and Mendez, R.* The relation between the mechanical and electrical response of the frog's heart | 69, 316, 1930. |
| " | *and Stella, G.* Impulses in the carotid sinus nerve | 82, 23*P*, 1934. |
| " | *and Rosenberg, H.* The rate of development and spread of electrotonus | 82, 353, 1934. |

| | | |
|---|---|---|
| Bogue, J. Yule | *and Rosenberg, H.* Action potentials in nerve of *Sepia* | 83, 21P, 1934. |
| ,, | *and Stella, G.* Afferent impulses in the carotid sinus nerve (nerve of Hering) during asphyxia and anoxaemia | 83, 459, 1935. |
| ,, | , *Evans, C. Lovatt and Hsu, F. Y.* The significance of lactic acid uptake by the mammalian heart | 84, 55P, 1935. |
| ,, | , *Rosenberg, H. and Young, J. Z.* Electrotonus in the fin nerve of *Sepia* | 86, 6P, 1935. |
| ,, | *and Rosenberg, H.* Excitability of sensory fibres in *Maia* nerve | 87, 67, 1936. |
| ,, | *and Rosenberg, H.* Electrical responses of *Maia* nerve to single and repeated stimuli | 87, 158, 1936. |
| ,, | , *Chang, I. and Rosenberg, H.* Osmotic pressure and velocity of impulse in *Maia* nerve | 87, 89P, 1936. |
| Bolton, B. | , *Carmichael, E. A. and Stürup, G.* Vasoconstriction following deep inspiration | 86, 83, 1936. |
| ,, | , *Carmichael, E. A. and Williams, D. J.* Mechanism of the peripheral vascular responses to changes in blood gas tension in man | 88, 113, 1936. |
| Bolton, C. | *and Goodhart, G. W.* The variations in the acidity of the gastric juice during secretion | 73, 115, 1931. |
| ,, | *and Goodhart, G. W.* The mucus factor in the automatic regulation of the acidity of the gastric contents | 77, 287, 1933. |
| ,, | *and Goodhart, G. W.* The role of duodenal regurgitation in the automatic regulation of the gastric acidity | 87, 360, 1936. |
| ,, | *and Wright, G. Payling.* The absorption of amino acids and their distribution in the body fluids | 89, 269, 1937. |
| Bond, M. | *and Briscoe, Grace.* The eye and nictitating membrane in deep dial anaesthesia | 83, 29P, 1934. |
| Bonnet, V. | *and Bremer, F.* A study of the after-discharge of spinal reflexes of the frog and toad | 90, 45P, 1937. |
| Booth, F. J. | *and Milroy, T. H.* A water soluble forerunner of choline in the kidneys | 84, 32P, 1935. |
| Booth, V. H. | A carbonic anhydrase inhibitor in serum | 87, 41P, 1936. |
| ,, | The carbonic anhydrase inhibitor in serum | 91, 474, 1938. |
| ,, | *and Roughton, F. J. W.* The catalytic effect of buffers on the reaction $CO_2 + H_2O \rightleftharpoons H_2CO_3$ | 92, 36P, 1938. |
| ,, | Accessibility of substrate to carbonic anhydrase in red blood corpuscles | 93, 8P, 1938. |
| ,, | Carbonic anhydrase activity inside corpuscles. Enzyme-substrate accessibility factors | 93, 117, 1938. |
| Boothby, W. M. | , *Buckley, O. B. and Wilhelmj, C. M.* The influence of work on the calorigenic action of thyroxine | 74, 376, 1932. |
| Bottomley, A. C. | *and Folley, S. J.* The effect of androgenic substances on the testes and accessory reproductive organs of the immature male guinea-pig | 92, 15P, 1938. |

| | | |
|---|---|---|
| Bottomley, A. C. | *and Folley, S. J.* The effect of androgenic substances on the rate of teat growth in the male guinea-pig | 92, 33P, 1938. |
| " | *and Folley, S. J.* The effect of high doses of androgenic substances on the weights of the testes' accessory reproductive organs and endocrine glands of young male guinea-pigs | 94, 26, 1938. |
| " | *Folley, S. J., Watson, Helen M. Scott and.* Induction of lactation in goats with diethylstilboestrol dipropionate | 98, 15P, 1940. |
| " | *Folley, S. J. and.* Observations on teat growth in immature female goats | 99, 5P, 1941 |
| " | *Folley, S. J., Watson, Helen M. Scott (Mrs C. C. Thiel), and.* Initiation of lactation in nulliparous heifers by diethylstilboestrol | 100, 7P, 1941. |
| Bouckaert, J. J. | *Heymans, C. and.* Sinus caroticus and respiratory reflexes. I. Cerebral blood flow and respiration. Adrenaline apnoea | 69, 254, 1930. |
| " | *Heymans, C. and.* Sinus caroticus and respiratory reflexes. Cerebral blood flow and respiration. Adrenaline apnoea | 69, xiii, 1930. |
| " | *Heymans, C. and.* Sinus caroticus reflexes upon venous pressure, liver volume and heart volume | 69, xxviii, 1930. |
| " | , *Dautrebande, L. and Heymans, C.* Sinus caroticus and respiratory reflexes. Influence of $CO_2$, hydrogen ion concentration and anoxaemia | 71, v, 1930. |
| " | *and Heymans, C.* Carotid sinus reflexes. Influence of central blood-pressure and blood supply on respiratory and vaso-motor centres | 79, 49, 1933. |
| " | *and Heymans, C.* On the reflex regulation of the cerebral blood flow and the cerebral vaso-motor tone | 84, 367, 1935. |
| " | , *Elaut, L. and Heymans, C.* Vaso-motor carotid sinus reflexes in experimental hypertension produced by renal ischemia | 89, 3P, 1936. |
| " | *and Heymans, C.* Some observations on the sympathectomized and vagotomized dog | 89, 4P, 1936. |
| " | *and Heymans, C.* The influence of barbiturates on the proprioceptive mechanisms of vaso-motor tone regulation | 90, 59P, 1937. |
| " | , *Heymans, C. and Samaan, A.* The role of carotid sinus and vagal chemoreceptors in the respiratory and vasomotor effects of hypoxaemia in anaesthetized and normal dogs | 94, 4P, 1938. |
| " | , *Grimson, K. S. and Heymans, C.* The importance of carotid sinus and vago-sympathetic-aortic nerves in respiratory and circulatory responses of decerebrate cats to oxygen want | 95, 43P, 1939. |
| " | , *Grimson, K. S. and Heymans, C.* Increase of blood pressure by perfusion of the ischaemic kidneys of hypertensive dogs | 96, 44P, 1939. |
| Bouckaert, J. P. | , *Capellen, L. and de Blende, J.* The visco-elastic properties of frog's muscles | 69, 473, 1930. |

| | | |
|---|---|---|
| Bouckaert, J. P. | *and Katz, B.* The effect of interelectrode distance on the time constant of electric excitation of nerve | 85, 10*P*, 1935. |
| " | *and Colle, J.* Evolution of excitatory disturbance in electrical stimulation of tissues | 90, 75*P*, 1937. |
| Bouman, H. D. | The effect of strychnine on the time constant of nerve excitation | 86, 67*P*, 1936. |
| " | 'Curarization' by strychnine | 87, 25*P*, 1936. |
| " | Experiments on the mechanism of strychnine 'curarization' | 88, 328, 1936. |
| " | The effect of electrotonus on the excitability of nerve | 89, 32, 1937. |
| Bourdillon, R. B. | Vaginal potentials in rabbits | 97, 138, 1939. |
| " | *and Lidwell, O. M.* Slow vaginal potentials | 98, 480, 1940. |
| Bourne, G. | The effect of progesterone on the survival of adrenalectomized rats | 95, 12*P*, 1939. |
| " | (Introduced by E. G. T. Liddell.) Vitamin C in cell physiology | 99, 9*P*, 1941. |
| Bourne, Margherita C. | , *Campbell, Dorothy R. and Tansley, Katharine.* Rhabdonecrosis (retinitis pigmentosa) in the rat | 93, 24*P*, 1938. |
| Boyd, E. M. | The effect of pregnancy and pseudo-pregnancy upon the blood lipoids of rabbits | 86, 250, 1936. |
| " | Lipoid substances of the ovary during ova production in *Rana pipiens* | 91, 394, 1938. |
| " | *and Dingwall, M., Jr.* The effect of pituitary (posterior lobe) extract on the body water of fish and reptiles | 95, 501, 1939. |
| Boyland, E. | Creatine and phosphorus compounds in malignant tumours | 75, 136, 1932. |
| Boyle, P. J. | , *Conway, E. J., Kane, F. and O'Reilly, H. L.* Volume of interfibre spaces in frog muscle and the calculation of concentrations in the fibre water | 99, 401, 1941. |
| " | *and Conway, E. J.* Potassium accumulation in muscle and associated changes | 100, 1, 1941. |
| Bozler, E. | The heat production of smooth muscle | 69, 442, 1930. |
| " | A new method of calibration for Hill's method of measuring heat production | 72, 24*P*, 1931. |
| Bradbrooke, H. N. | *Clark-Kennedy, A. E., —— and Owen, T.* The effect of breathing carbon dioxide on muscular exercise in man | 61, x, 1926. |
| Brambell, F. W. R. | *Parkes, A. S. and.* The causation of the anoestrous period | 64, 388, 1928. |
| " | *and Parkes, A. S.* The effect of Chicago blue and chlorazol blue on the clotting time of the blood and on ovulation in the rabbit | 74, 65, 1932. |
| " | *and Parkes, A. S.* Studies on ovulation. VI. Relative importance of concentration and absolute amount of the ovulation-producing hormone | 74, 173, 1932. |
| Bramwell, C. | *and Ellis, R.* The crescendo murmur of mitral stenosis | 67, xviii, 1929. |
| Brandt-Rehberg, P. | *Krogh, A. and.* The active relaxation of capillaries and venules in 'reflex flare' | 64, xxxii, 1927. |

| | | |
|---|---|---|
| Brandt-Rehberg, P. | *Ni, Tsang-G. and.* On the influence of posture on kidney function | 71, 331, 1931. |
| Branion, H. D. | *Taylor, N. B., —— and Kay, H. D.* Some effects of the administration of excessive doses of irradiated ergosterol to normal and to parathyroidectomised dogs | 69, xxxv, 1930. |
| Braun-Menendez, E. | *, Fasciolo, J. C., Leloir, L. F. and Muñoz, J. M.* The substance causing renal hypertension | 98, 283, 1940. |
| Brazier, M. A. B. | (Introduced by Samson Wright.) A portable apparatus for measuring the impedance angle of the human body | 83, 1P, 1934. |
| Bremer, F. | The contractile duality of the skeletal muscle | 67, xxix, 1929. |
| " | Researches on the contracture of skeletal muscle | 76, 65, 1932. |
| " | *Bonnet V. and.* A study of the after-discharge of spinal reflexes of the frog and toad | 90, 45P, 1937 |
| Brevér, J. F. G. | *Dusser de Barenne, J. G. and.* The interpretation of the electromyogram of striated muscle during contractions set up by central nervous excitation | 61, 81, 1926. |
| Bridge, E. M. | *and Noltie, H. R.* The action of adrenaline on the respiratory quotient | 85, 334, 1935. |
| Briegeb, E. | *Cooke, A. M. and Priestley, J. G.* Measurement of the circulation rate in man | 85, 3P, 1935. |
| Briggs, G. | *, Choyce, D. P., Hill, J. and Kerridge, Phyllis M. T.* The acuity of hearing of left- and right-handed children | 96, 48P, 1939. |
| Brinkman, R. | *and Margaria, R.* The influence of haemoglobin on the hydration and dehydration velocities of $CO_2$ | 72, 6P, 1931. |
| " | *, Margaria, R., Meldrum, N. U. and Roughton, F. J. W.* The $CO_2$ catalyst present in blood | 75, 3P, 1932. |
| " | The occurrence of carbonic anhydrase in lower marine animals | 80, 171, 1933. |
| " | *, Wildschut, A. and Wittermans, A.* On the occurrence of two kinds of haemoglobin in normal human blood | 80, 377, 1934. |
| " | *and Jonxis, J. H. P.* The occurrence of several kinds of haemoglobin in human blood | 85, 117, 1935. |
| " | *and Jonxis, J. H. P.* Alkaline resistance and spreading velocity of foetal and adult types of mammalian haemoglobin | 88, 162, 1936. |
| Briscoe, Grace | The conduction of respiratory nervous impulses through regions of block produced by pressure | 61, 353, 1926. |
| " | Graded muscular contractions of natural form produced by electrical stimulation | 63, II, 1927. |
| " | A class experiment in reciprocal contraction of antagonistic muscles | 68, xix, 1929. |
| " | Prolonged postural contraction in peripheral preparations of mammalian muscle | 70, xxvii, 1930. |
| " | Adequate electrical stimuli for posture and movement | 71, 292, 1931. |
| " | Observations on the action of the respiratory centre | 75, 42P, 1932. |

| | | |
|---|---|---|
| Briscoe, Grace | 'Postural reversal' in peripheral preparations | 76, 82, 1932. |
| ,, | Inhibition in peripheral preparations of skeletal muscle | 76, 11*P*, 1932. |
| ,, | A simple graphic method of showing extensor tone in dial anaesthesia | 81, 19*P*, 1934. |
| ,, | The after-effects of sudden changes in stimulation rate under different conditions of anaesthesia | 82, 88, 1934. |
| ,, | *Bond, M. and.* The eye and nictitating membrane in deep dial anaesthesia | 83, 29*P*, 1934. |
| ,, | Selective action of small doses of curarine for certain rates and strengths of stimulation | 84, 43*P*, 1935. |
| ,, | Depressant peripheral effect of prostigmin and its temporary antagonism by curarine | 86, 1*P*, 1935. |
| ,, | Shift in optimum rate of stimulation due to prostigmine | 86, 48*P*, 1936. |
| ,, | The antagonism between curarine and acetylcholine | 87, 425, 1936. |
| ,, | Optimum stimulation rates for red and white skeletal mammalian muscles, and shift in rates produced by the eserine group | 90, 10*P*, 1937. |
| ,, | Eseriniform and curariform actions of certain onium salts | 93, 6*P*, 1938. |
| ,, | Changes in muscle contraction curves produced by drugs of the eserine and curarine groups | 93, 194, 1938. |
| Brocklehurst, R. J. | Studies on the physiology of plain muscle. The effect of alteration of initial length on the tension produced on contraction | 61, 275, 1926. |
| ,, | , *Bazett, H. C., McGlone, B. and.* The temperatures in the tissues which accompany temperature sensations | 69, 88, 1930. |
| Broda, E. E. | , *Goodeve, C. F. and Lythgoe, R. J.* The weight of the chromophore carrier in the visual purple molecule | 98, 397, 1940. |
| Brodman, K. | *Cattell, McKeen and.* The influence of the number of active fibres on the heat-tension ratios of striated muscle | 70, 195, 1930. |
| ,, | *and Cattell, McKeen.* Heat versus tension in relation to the problem of plurisegmental innervation | 70, 205, 1930. |
| Bronk, D. W. | *Adrian, E. D. and.* The discharge of impulses in motor nerve fibres. Part I. Impulses in single fibres of the phrenic nerve | 66, 81, 1928. |
| ,, | *Adrian, E. D. and.* Apparatus for demonstrating nerve and muscle action currents | 66, xiii, 1928. |
| ,, | The action of strychnine on sensory end organs in muscle and skin of the frog | 67, 17, 1929. |
| ,, | *Adrian, E. D. and.* The discharge of impulses in motor nerve fibres. Part II. The frequency of discharge in reflex and voluntary contractions | 67, 119, 1929. |
| ,, | Fatigue of the sense organs in muscle | 67, 270, 1929. |
| ,, | The energy expended in maintaining a muscular contraction | 69, 306, 1930. |
| ,, | The initial and recovery heat production of vertebrate nerve | 71, 136, 1931. |

| | | |
|---|---|---|
| Bronk, D. W. | *Adrian, E. D., —— and Phillips, G.* The nervous origin of the Wever and Bray effect | 73, 2P, 1931. |
| ,, | *Adrian, E. D., —— and Phillips, G.* Discharges in mammalian sympathetic nerves | 74, 115, 1932. |
| Brooks, W. D. W. | The effect of breathing exercises upon the total pulmonary capacity and its subdivisions in a case of asthma | 95, 25P, 1939. |
| Brooksby, J. B. | The reactivity during oestrus and pregnancy of the rat uterus to the oxytocic principle of the posterior pituitary gland | 90, 365, 1937. |
| ,, | *and Newton, W. H.* The effect of the placenta on the body weight of the mouse | 92, 136, 1938. |
| Brouha, L. | , *Cannon, W. B. and Dill, D. B.* The heart rate of the sympathectomized dog in rest and exercise | 87, 345, 1936. |
| ,, | , *Cannon, W. B. and Dill, D. B.* Blood-sugar variations in normal and in sympathectomized dogs | 95, 431, 1939. |
| ,, | *and Nowak, S. J. G.* The role of the vagus in the cardio-accelerator action of atropine in sympathectomized dogs | 95, 439, 1939. |
| ,, | , *Nowak, S. J. G. and Dill, D. B.* The role of the vagus in the cardio-accelerator action of muscular exercise and emotion in sympathectomized dogs | 95, 454, 1939. |
| Brown, A. | *Bayliss, L. E. and.* The part played by the renal nerves in the production of water diuresis in the hypophysectomized and decerebrate dog | 98, 190, 1940. |
| Brown, G. L. | *and McSwiney, B. A.* Reaction to drugs of strips of the rabbit's gastric musculature | 61, 261, 1926. |
| ,, | *McSwiney, B. A. and.* Reversal of the action of adrenaline | 62, 52, 1926. |
| ,, | *and Lamb, F. W.* Apparatus for the observation and photography of the skin capillaries in man | 65, iv, 1928. |
| ,, | , *McSwiney, B. A. and Wadge, W. J.* The sympathetic innervation of the stomach. I. The effect on the stomach of stimulation of the thoracic sympathetic trunk | 70, 253, 1930. |
| ,, | *and Lees, D. S.* Contact breaker for variable frequencies | 72, 17P, 1931. |
| ,, | *and McSwiney, B. A.* The sympathetic innervation of the stomach. IV. Reversal of sympathetic action by luminal | 74, 179, 1932. |
| ,, | *and Garry, R. C.* Reversal of the gastric vagus | 75, 213, 1932. |
| ,, | , *Eccles, J. C. and Hoff, H. E.* The action of the vagus on the rhythm of the mammalian heart | 76, 9P, 1932. |
| ,, | Conduction in the cervical sympathetic | 81, 228, 1934. |
| ,, | *and Eccles, J. C.* The action of a single vagal volley on the rhythm of the heart beat | 82, 211, 1934. |
| ,, | *and Eccles, J. C.* Further experiments on vagal inhibition of the heart beat | 82, 242, 1934. |
| ,, | *and Feldberg, W.* Effect of potassium chloride on a sympathetic ganglion | 84, 12P, 1935. |

| | | |
|---|---|---|
| Brown, G. L. | *and Feldberg, W.* Differential paralysis of the superior cervical ganglion | 86, 10P, 1935. |
| ,, | *and Feldberg, W.* The action of potassium on the superior cervical ganglion of the cat | 86, 290, 1936. |
| ,, | *and Feldberg, W.* Synthesis of acetylcholine in the superior cervical ganglion | 86, 40P, 1936. |
| ,, | *and Feldberg, W.* Inhibition in a ganglion by excess of acetylcholine | 86, 41P, 1936. |
| ,, | *and Dale, H. H.* Perfusion with solution of haemolysed red corpuscles | 86, 42P, 1936. |
| ,, | , *Dale, H. H. and Feldberg, W.* Chemical transmission of excitation from motor nerve to voluntary muscle | 87, 42P, 1936. |
| ,, | , *Dale, H. H. and Feldberg, W.* Reactions of the normal mammalian muscle to acetylcholine and to eserine | 87, 394, 1936. |
| ,, | *and Feldberg, W.* The acetylcholine metabolism of a sympathetic ganglion | 88, 265, 1936. |
| ,, | *Bacq, Z. M. and.* Pharmacological experiments on mammalian voluntary muscle, in relation to the theory of chemical transmission | 89, 45, 1937. |
| ,, | Actions of acetylcholine on denervated mammalian and on frog's muscle | 89, 12P, 1936. |
| ,, | Action potentials of normal mammalian muscle. Effects of acetylcholine and eserine | 89, 220, 1937. |
| ,, | The actions of acetylcholine on denervated mammalian and frog's muscle | 89, 438, 1937. |
| ,, | *and Eccles, J. C.* Vagal inhibition of the cardiac pacemaker | 90, 14P, 1937. |
| ,, | The action of potassium chloride on mammalian muscle | 91, 4P, 1937. |
| ,, | The preparation of the Tibialis anterior (cat) for close arterial injections | 92, 22P, 1938. |
| ,, | Effect of small doses of curarine on neuromuscular conduction | 92, 23P, 1938. |
| ,, | *and Harvey, A. M.* Neuro-muscular conduction in the fowl | 92, 24P, 1938. |
| ,, | *and Euler, U. S. v.* The after effects of a tetanus on mammalian muscle | 93, 39, 1938. |
| ,, | *and Harvey, A. M.* Neuro-muscular conduction in the fowl | 93, 285, 1938. |
| ,, | *and Harvey, A. M.* Reactions of avian muscle to acetylcholine and eserine | 94, 101, 1938. |
| ,, | *and MacIntosh, F. C.* Discharges in nerve fibres produced by potassium ions | 96, 10P, 1939. |
| ,, | *and Harvey, A. M.* Congenital myotonia in the goat | 96, 11P, 1939. |
| ,, | *and Maycock, W. d'A.* Vascular reactions of the cat after total sympathectomy | 97, 273, 1940. |
| ,, | *and Harvey, A. M.* Effects of changes in dietary calcium on neuromuscular transmission | 97, 330, 1940. |
| ,, | *and Harvey, A. M.* Neuro-muscular transmission in the extrinsic muscles of the eye | 99, 379, 1941. |
| Brown, G. M. | , *McLean, F. J. and Macgraith, B. G.* The pressor response of hypertensive rabbits to injections of tyramine and posterior pituitary extract | 96, 46P, 1939. |

| | | |
|---|---|---|
| Brown, G. M. | *and Macgraith, B. G.* Characteristics of the circulation of hypertensive rabbits | 99, 304, 1941. |
| Brown, Marion | *and Imrie, C. G.* On the creatine and phosphorus content of muscle | 71, 214, 1931. |
| „ | *and Imrie, C. G.* The influence of creatine on the excretion of phosphates by the kidney | 71, 222, 1931. |
| „ | *and Imrie, C. G.* The influence of the parathyroid on the metabolism of creatine and phosphoric acid. Part I. Phosphate excretion after injections of creatine and parathormone | 75, 366, 1932. |
| Brown, T. Graham | The 'interference' of two flexion-reflexes; an examination of Vészi's experiment | 62, 98, 1926. |
| „ | The initial phase of reflex inhibitory relaxation in extensor muscles | 63, 187, 1927. |
| „ | Upon inhibitory relaxations evoked by reflex stimuli of constant intensity acting against varied magnitudes of extensor tone | 63, 197, 1927. |
| „ | A method for the automatic regulation of the body temperature of decerebrate and spinal preparations of the cat and other animals | 68, xii, 1929. |
| „ | A new differential æsthesiometer | 77, 16*P*, 1933. |
| Browne, J. S. L. | *and Vineberg, A. M.* The interdependence of gastric secretion and the $CO_2$ content of the blood | 75, 345, 1932. |
| „ | *and Evans, C. Lovatt.* Carbohydrate metabolism and the effect of decapitation and decerebration under nitrous oxide anæsthesia | 80, 1, 1933. |
| „ | , *Karady, S. and Selye, H.* The effect of noxious agents on creatine, creatinine, chloride and water excretion | 97, 1, 1939. |
| Bruce, H. M. | *and Wien, R.* The effect of riboflavin, riboflavinphosphoric acid and the cortical hormone on the survival of adrenalectomized rats receiving normal and riboflavin-deficient diets | 98, 375, 1940. |
| Brücke, F. T. v. | The cholinesterase in sympathetic ganglia | 89, 429, 1937. |
| „ | The influence of atropine on the output of acetylcholine during vagus stimulation in the frog's heart | 90, 81*P*, 1937. |
| „ | The response of a denervated ganglion to acetylcholine | 91, 375, 1938. |
| Brues, A. M. | (Introduced by E. Boyland.) The effect of colchicine on regenerating liver | 86, 63*P*, 1936. |
| Brull, L. | The excretion of inorganic phosphate in the heart-lung-kidney preparations | 90, 70*P*, 1937. |
| Brunton, C. E. | The nervous regulation of respiration. Response of the human subject to interruption of the air supply | 67, 191, 1929. |
| „ | *and Israëls, M. C. G.* Interrelations of respiration and gastric secretion | 70, 184, 1930. |
| „ | A case of low metabolism with tumour of the pituitary region | 71, xxvii, 1931. |
| „ | *and Wilson, C.* The relation of different foodstuffs to the alkaline tide of the urine | 74, 10*P*, 1932. |

| | | |
|---|---|---|
| Brunton, C. E. | The influence of foodstuffs on the rate of urinary acid excretion | 78, 65, 1933. |
| ,, | *and Isratis, M. C. G.* Stethographic method to ensure that alveolar air samples are taken in the correct phase of respiration | 78, 11*P*, 1933. |
| ,, | The pH of the arterial blood during gastric secretion | 79, 4*P*, 1933. |
| ,, | Studies in exophthalmos. The effect of certain sympathomimetic substances on the eye of the cat and dog | 84, 334, 1935. |
| ,, | Studies on exophthalmos. Retraction of the nictitating membrane and eyelids in the cat without dilatation of the pupil | 84, 49*P*, 1935. |
| ,, | The smooth muscle mechanism of exophthalmos in the cat and dog | 87, 60*P*, 1936. |
| ,, | The production of exophthalmos in the dog by acetylcholine | 97, 383, 1940. |
| Buchanan, D. N. | *and Garven, H. S. D.* The chronaxie in tetany. The effect on the chronaxie of thyreoparathyreoidectomy, the administration of guanidin and of di-methyl guanidin | 62, 115, 1926. |
| Buchanan, F. | A method for recording the action current of a single spot of skeletal muscle without injuring any other spot | 64, II, 1927. |
| Buchthal, F. | Bi-refringence and potential differences of single living striated muscle fibres | 90, 37*P*, 1937. |
| ,, | *and Lindhard, J.* Direct application of acetylcholine to motor end plates of voluntary muscle fibres | 90, 82*P*, 1937. |
| ,, | *and Lindhard, J.* Acetylcholine block of the motor end-plate and electrical stimulation of nerve | 95, 59*P*, 1939. |
| Buckley, O. B. | *Boothby, W. M.*, —— *and Wilhelmj, C. M.* The influence of work on the calorigenic action of thyroxine | 74, 376, 1932. |
| Buckmaster, G. A. | *and Hickman, H. R. B.* The gases of urine and bile | 61, xvii, 1926. |
| ,, | *and Hickman, H. R. B.* The tension of oxygen in human urine | 65, xv, 1928. |
| Bugnard, L. | 'Inhibition' in medullated nerve | 80, 441, 1934. |
| ,, | The relation between total and initial heat in single muscle twitches | 82, 509, 1934. |
| ,, | *and Hill, A. V.* High-frequency stimulation of nerve and the refractory period | 83, 18*P*, 1934. |
| ,, | *and Hill, A. V.* Electric excitation of the fin nerve of *Sepia* | 83, 20*P*, 1934. |
| ,, | *and Hill, A. V.* The effect of frequency of excitation on the thermal response of medullated nerve | 83, 383, 1935. |
| ,, | *and Hill, A. V.* The effect of frequency of excitation on the total electric response of medullated nerve | 83, 394, 1935. |
| ,, | *and Hill, A. V.* A further analysis of the effects of high-frequency excitation of nerve | 83, 416, 1935. |
| ,, | *and Hill, A. V.* Electric excitation of the fin nerve of *Sepia* | 83, 425, 1935. |

| | | |
|---|---|---|
| BUGNARD, L. | The heat production of cat's nerve | 86, 29, 1936. |
| BÜLBRING, EDITH | *and Burn, J. H.* Cholinergic nature of sympathetic vaso-dilator fibres | 81, 42*P*, 1934. |
| " | *and Burn, J. H.* The sympathetic dilator fibres in the muscles of the cat and dog | 83, 483, 1935. |
| " | *and Burn, J. H.* The Sherrington phenomenon | 85, 1*P*, 1935. |
| " | *and Burn, J. H.* Vaso-dilatation in the splanchnic vessels | 85, 2*P*, 1935. |
| " | *and Burn, J. H.* The estimation of oestrin and of male hormone in oily solution | 85, 320, 1935. |
| " | *and Burn, J. H.* The Sherrington phenomenon | 86, 61, 1936. |
| " | *and Burn, J. H.* Sympathetic vaso-dilatation in the skin and the intestine of the dog | 87, 254, 1936. |
| " | *and Burn, J. H.* Sympathetic vaso-dilator fibres in the hare and the monkey compared with other species | 88, 341, 1936. |
| " | The standardization of cortical extracts by the use of drakes | 89, 64, 1937. |
| " | Relation between size of testes and requirement of cortical extract in adrenalectomized drakes | 91, 18*P*, 1937. |
| " | *and Burn, J. H.* The action of tyramine and adrenaline on the denervated nictitating membrane | 91, 459, 1938. |
| " | *and Burn, J. H.* Factors affecting neuromuscular transmission | 95, 49*P*, 1939. |
| " | *and Burn, J. H.* Blood flow during muscle contraction and the Orbeli phenomenon in the dog | 95, 203, 1939. |
| " | *and Burn, J. H.* Vascular changes affecting the transmission of nervous impulses | 97, 250, 1939. |
| " | *and Whitteridge, D.* The effect of adrenaline on nerve action potentials | 99, 201, 1941. |
| " | *and Burn, J. H.* Observations bearing on synaptic transmission by acetylcholine in the spinal cord | 100, 337, 1941. |
| BULMAN, H. A. | *Wright, S. and.* Physiological action of X-rays. (Preliminary communication) | 68, IV, 1929. |
| BURBANK, R. C. | *and Young, J. Z.* Temperature changes and winter sleep of bats | 82, 459, 1934. |
| BURN, J. H. | *and Dale, H. H.* The vaso-dilator action of histamine, and its physiological significance | 61, 185, 1926. |
| " | *and Marks, H. P.* The production of sugar in the perfused liver from non-protein sources | 61, 497, 1926. |
| " | *Coward, Katharine H. and.* The variation in the unit of the oestrus-producing hormone | 63, 270, 1927. |
| " | *and Ling, H. W.* The effect of injections of pituitary extract, adrenalin and insulin on Ketonuria | 64, XXII, 1927. |
| " | *and Ling, H. W.* The effect of insulin on acetonuria | 65, 191, 1928. |
| " | *and Ling, H. W.* Ketonuria in rats on a fat diet (*a*) after injections of pituitary (anterior lobe) extract, (*b*) during pregnancy | 69, XIX, 1930. |
| " | *and Tainter, M. L.* An analysis of the effect of cocaine on the actions of adrenaline and tyramine | 71, 169, 1931. |

| | | |
|---|---|---|
| BURN, J. H. | On vaso-dilator fibres in the sympathetic, and on the effect of circulating adrenaline in augmenting the vascular response to sympathetic stimulation | 75, 144, 1932. |
| " | *Bhatia, B. B. and.* Action of ether on the sympathetic system | 77, 30*P*, 1932. |
| " | *Bhatia, B. B. and.* The action of ether on the sympathetic system | 78, 257, 1933. |
| " | *Bülbring, Edith and.* Cholinergic nature of sympathetic vaso-dilator fibres | 81, 42*P*, 1934. |
| " | *Bülbring, Edith and.* The sympathetic dilator fibres in the muscles of the cat and dog | 83, 483, 1935. |
| " | *Bülbring, Edith and.* The Sherrington phenomenon | 85, 1*P*, 1935. |
| " | *Bülbring, Edith and.* Vaso-dilatation in the splanchnic vessels | 85, 2*P*, 1935. |
| " | *Bülbring, Edith and.* The estimation of oestrin and of male hormone in oily solution | 85, 320, 1935. |
| " | *Bülbring, Edith and.* The Sherrington phenomenon | 86, 61, 1936. |
| " | *Bülbring, Edith and.* Sympathetic vaso-dilatation in the skin and the intestine of the dog | 87, 254, 1936. |
| " | *Bülbring, Edith and.* Sympathetic vaso-dilator fibres in the hare and the monkey compared with other species | 88, 341, 1936. |
| " | *Bülbring, Edith and.* The action of tyramine and adrenaline on the denervated nictitating membrane | 91, 459, 1938. |
| " | *Bülbring, Edith and.* Factors affecting neuro-muscular transmission | 95, 49*P*, 1939. |
| " | *Bülbring, Edith and.* Blood flow during muscle contraction and the Orbeli phenomenon in the dog | 95, 203, 1939. |
| " | *Bülbring, Edith and.* Vascular changes affecting the transmission of nervous impulses | 97, 250, 1939. |
| " | *Bülbring, Edith and.* Observations bearing on synaptic transmission by acetylcholine in the spinal cord | 100, 337, 1941. |
| BURNS, CLARICE MARGARET | Calcium salts of bone | 78, 1*P*, 1933. |
| | *and Henderson, N.* The salts of young bone | 82, 7*P*, 1934. |
| " | Bone composition in the new-born young of some species | 83, 46*P*, 1935. |
| " | *and Elliott, F. J.* The calcium content of liver | 84, 39*P*, 1935. |
| BURNS, D. | *and Secker, J.* Action of guanidine salts on the vago-cardiac inhibitory mechanism | 84, 16*P*, 1935. |
| " | Guanidine and parathyroid extract | 87, 73*P*, 1936. |
| " | *and Secker, J.* Potentiation of adrenaline activity | 88, 2*P*, 1936. |
| " | *and Secker, J.* Physical fitness of pre-adolescent boys of three soci-economic levels. (A preliminary study.) | 98, 2*P*, 1940. |
| " | So-called negative intrapleural pressure | 98, 26*P*, 1940. |
| BURNS, W. | *and Cruickshank, E. W. H.* Changes in creatine, phosphagen and adenylpyrophosphate in relation to the gaseous metabolism of the heart | 91, 314, 1937. |

| | | |
|---|---|---|
| Burns, W. | A pump of small internal volume | 99, 102, 1940. |
| ,, | Activity in visceral nerves | 100, 11*P*, 1941. |
| ,, | Economical development of long lengths of film or bromide paper | 100, 13*P*, 1941. |
| Burridge, W. | Note on sweating | 66, II, 1928. |
| Burrows, H. | Separation of the pubic bones following the administration of oestrogens to male mice | 85, 159, 1935. |
| Buytendijk, F. J. J. | *Adrian, E. D. and.* Potential changes in the isolated brain stem of the goldfish | 71, 121, 1931. |
| Byrom, F. B. | *and Wilson, C.* Plethysmographic method for measuring systolic blood pressure in the intact rat | 93, 301, 1938. |
| Callow, R. K. | (Introduced by A. S. Parkes.) The prolongation of the physiological activity of androsterone by esterification | 86, 49*P*, 1936. |
| ,, | *and Parkes, A. S.* The occurrence of oestrin and progestin in adrenal, testis, and hypophysis | 87, 28*P*, 1936. |
| Cameron, A. T. | *and Moorhouse, V. H. K.* The relation between plasma and cerebrospinal fluid calcium | 91, 90, 1937. |
| Cameron, J. D. S. | The excretion of urea by the elasmobranch and mammalian kidney | 75, 24*P*, 1932. |
| Cameron, May L. | Differences of structure between the white and red muscles of the rabbit | 67, xxxix, 1929. |
| Camis, M. | The curariform activities of some onium salts on mammals | 83, 7*P*, 1934. |
| Campbell, Dorothy R. | *Bourne, Marjherita, C., —— and Tansley, Katharine.* Rhabdonecrosis (retinitis pigmentosa) in the rat | 93, 24*P*, 1938 |
| Campbell, J. | *Best, C. H. and.* Anterior pituitary extracts and liver fat | 86, 190, 1936. |
| ,, | *Best, C. H. and.* The effect of anterior pituitary extracts on the liver fat of various animals | 92, 91, 1938. |
| ,, | *Best, C. H., —— and Haist, R. E.* The effect of anterior pituitary extracts on the insulin content of the pancreas | 97, 200, 1939. |
| Campbell, J. Argyll | The normal $CO_2$- and $O_2$-tensions in the tissues of various animals | 61, 248, 1926. |
| ,, | Prolonged alterations of oxygen pressure in the inspired air with special reference to tissue oxygen tension, tissue carbon dioxide tension and haemoglobin | 62, 211, 1927. |
| ,, | Further observations on oxygen acclimatisation | 63, 325, 1927. |
| ,, | Tissue oxygen tension and haemoglobin | 65, 255, 1928. |
| ,, | $CO_2$- and $O_2$-tensions in the bladder | 65, xviii, 1928. |
| ,, | The effects of breathing $CO_2$ and $O_2$ mixtures upon the $CO_2$- and $O_2$-tensions in the tissues | 66, I, 1928. |
| ,, | Hydrogen in the tissues | 67, vi, 1929. |
| ,, | Gas tensions at the skin surface of man | 67, viii, 1929. |
| ,, | *and Angus, T. C.* Water evaporated during work | 67, x, 1929. |

| | | |
|---|---|---|
| CAMPBELL, J. ARGYLL | Tissue oxygen tension and carbon monoxide poisoning | 68, 81, 1929. |
| " | Effects of breathing oxygen at high pressures upon tissue gas tensions | 68, VII, 1929. |
| " | *and Hill, L.* Concerning the amount of nitrogen gas in the tissues and its removal by breathing almost pure oxygen | 71, 309, 1931. |
| " | *and Hill, L.* Rate of saturation of goat's tissues with excess gaseous nitrogen during exposure *in vivo* to increased atmospheric pressure | 75, 22P, 1932. |
| " | The effects of adrenaline and ephedrine upon certain tissue gas tensions | 75, 23P, 1932. |
| " | Normal gas tensions in the mucous membrane of the rabbit's uterus | 76, 13P, 1932. |
| " | Gas tensions in the gall bladder | 77, 6P, 1932. |
| " | Hypertrophy of the heart in acclimatization to chronic carbon monoxide poisoning | 77, 8P, 1932. |
| " | Acclimatization(?) of animals to 0·3 p.c. carbon monoxide in the inspired air | 80, 11P, 1933. |
| " | *and Taylor, H. J.* A modification of Krogh's micro-method of gas analysis | 84, 219, 1935. |
| " | A box mask for administration of oxygen | 87, 59P, 1936. |
| " | Gas pressures in the fluids in the rabbit's gestation sac | 87, 68P, 1936. |
| " | Body temperature and oxygen poisoning | 89, 17P, 1936. |
| " | A collapsible face-tent for oxygen administration | 89, 18P, 1936. |
| " | Oxygen poisoning and the thyroid gland | 90, 91P, 1937. |
| " | Effects of oxygen pressure as influenced by external temperature, hormones and drugs | 92, 29P, 1938. |
| " | Recent types of face-tents for oxygen administration | 92, 31P, 1938. |
| " | Increase of resistance to oxygen want in rats on a carrot diet | 93, 31P, 1938. |
| " | Resistance to oxygen want | 95, 1P, 1939. |
| " | Protein and resistance to oxygen want | 95, 28P, 1939. |
| " | Zein and resistance to oxygen want | 96, 33P, 1939. |
| CANNON, W. B. | *Brouha, L., —— and Dill, D. B.* The heart rate of the sympathectomized dog in rest and exercise | 87, 345, 1936. |
| " | *Brouha, L., —— and Dill, D. B.* Blood-sugar variations in normal and in sympathectomized dogs | 95, 431, 1939. |
| CANNY, A. J. | , *Verney, E. B. and Winton, F. R.* The double heart-lung-kidney preparation | 68, 333, 1930. |
| CAPELLEN, L. | *Bouckaert, J. P., —— and de Blends, J.* The visco-elastic properties of frog's muscles | 69, 473, 1930. |
| CARLETON, H. M. | *and Liddell, E. G. T.* Effect of a liver diet upon the arterial pressure of a cat | 90, 89P, 1937. |
| CARMICHAEL, E. A. | *Bolton, B., —— and Stürup, G.* Vaso-constriction following deep inspiration | 86, 83, 1936. |
| " | *Bolton, B., —— and Williams, D. J.* Mechanism of the peripheral vascular responses to changes in blood gas tension in man | 88, 113, 1936. |

| | | |
|---|---|---|
| CARMICHAEL, E. A. | , *Doupe, J. and Williams, D. J.* The cerebro-spinal fluid pressure of man in the erect posture | 91, 186, 1937. |
| " | , *Doupe, J., Harper, A. A. and McSwiney, B. A.* Vasomotor reflexes in man following duodenal distension | 95, 276, 1939. |
| " | , *Honeyman, W. M., Kolb, L. C. and Stewart, W. K.* A physiological study of the skin resistance response in man | 99, 329, 1941. |
| " | , *Honeyman, W. M., Kolb, L. C. and Stewart, W. K.* Peripheral conduction rate in the sympathetic nervous system of man | 99, 338, 1941. |
| CARTER, C. W. | *and Drury, A. N.* Heart block in rice-fed pigeons | 68, 1, 1929. |
| CATE, J. ten | Unisegmental reflexes in the dogfish | 82, 179, 1934. |
| CATHCART, E. P. | *and Markowitz, J.* The influence of various sugars on the respiratory quotient. A contribution to the significance of the R.Q. | 63, 309, 1927. |
| " | *and Cuthbertson, D. P.* The composition and distribution of the fatty substances of the human subject | 72, 349, 1931. |
| CATTELL, MCKEEN | Plurisegmental innervation in the frog | 66, 431, 1928. |
| " | *and Brodman, K.* The influence of the number of active fibres on the heat-tension ratios of striated muscle | 70, 195, 1930. |
| " | *Brodman, K. and.* Heat versus tension in relation to the problem of plurisegmental innervation | 70, 205, 1930. |
| " | *Adrian, E. D., —— and Hoagland, H.* Sensory discharges in single cutaneous nerve fibres | 72, 377, 1931. |
| " | *and Hoagland, H.* Response of tactile receptors to intermittent stimulation | 72, 392, 1931. |
| " | *Blaschko, H., —— and Kahn, J. L.* On the nature of the two types of response in the neuromuscular system of the crustacean claw | 73, 25, 1931. |
| " | *and Hartree, W.* The delayed anaerobic heat production of stimulated muscle | 74, 221, 1932. |
| " | The influence of shortening on the heat production of the frog's gastrocnemius | 75, 264, 1932. |
| " | *and Lundegaard, E.* The efficiency of isolated muscle in relation to the degree of aerobic activity | 78, 246, 1933. |
| " | *and Feit, H.* Changes in the efficiency of muscular contraction in relation to activity. (Preliminary note) | 82, 15P, 1934. |
| " | *and Parkinson, J. L.* Changes in the 'efficiency' of muscular contraction during a series of twitches in nitrogen | 82, 258, 1934. |
| " | *and Gerard, R. W.* The 'inhibitory' effect of high-frequency stimulation and the excitation state of nerve | 83, 28P, 1934. |
| " | *and Gerard, R. W.* The 'inhibitory' effect of high-frequency stimulation and the excitation state of nerve | 83, 407, 1935. |

| | | |
|---|---|---|
| Cattell, McKeen | *and Feit, H.* The effect of anaerobic activity and rest on the efficiency of contraction in isolated frog muscle | 91, 259, 1937. |
| Caunter, R. | A modification of Sherrington's stethograph | 68, xi, 1929. |
| Cerqua, S. | The part played by the splanchnic innervation in the emptying time of the stomach | 84, 232, 1942. |
| Chakravarti, M. | *and Tripod, J.* The action in the perfused liver of acetylcholine, sympathomimetic substances and local anaesthetics | 97, 316, 1940. |
| Chalmers, A. K. | *Forster, M. C.* (Assisted by ——.) The effect of atropine on adrenaline hyperglycaemia in rabbits decerebrated anterior to the pons | 79, 239, 1933. |
| Chamberlain, E. N. | The cholesterol content of normal tissues and the effect of intravenous injections of cholesterol thereon | 66, 249, 1928. |
| " | Sex differences in the cholesterol content of tissues | 68, 259, 1929. |
| " | The effect of endocrine extracts on the cholesterol content of the suprarenals | 69, vii, 1929. |
| " | The effect of insulin and other endocrine extracts on the cholesterol content of tissues | 70, 441, 1930. |
| Chang, H. C. | *and Gaddum, J. H.* Choline esters in tissue extracts | 79, 255, 1933. |
| " | *, Chia, K. F., Heh, C. H. and Lim, R. K. S.* Reflex secretion of the posterior pituitary elicited through the vagus | 90, 87P, 1937. |
| Chang, I. | *Bogue, J. Yule, —— and Rosenberg, H.* Osmotic pressure and velocity of impulse in *Maia* nerve | 87, 89P, 1936. |
| Channon, H. J. | *Best, C. H., —— and Ridout, Jessie H.* Choline and the dietary production of fatty livers | 81, 409, 1934. |
| Chapman, F. W. | An improved method for recording photographically cathode-ray oscillograms | 84, 25P, 1935. |
| Charlier, R. | *André, M., Barzin, J., ——, Dautrebande, L., Demanez, L. and Tawaststjerna, M.* Influence of prolonged and repeated inhalations of carbonic acid on the blood and diuresis | 90, 74P, 1937. |
| Chia, K. F. | *Chang, H. C., ——, Heh, C. H. and Lim, R. K. S.* Reflex secretion of the posterior pituitary elicited through the vagus | 90, 87P, 1937. |
| Chick, Harriette | *and Ellinger, P.* The photosensitising action of buckwheat (*Fagopyrum esculentum*) | 100, 212, 1941. |
| Ching, J. | *and Hartridge, H.* The physiology of rapid movements | 83, 40P, 1934. |
| Choyce, D. P. | *Briggs, G., ——, Hill, J. and Kerridge, Phyllis M. T.* The acuity of hearing of left- and right-handed children | 96, 48P, 1939. |
| Christie, R. V. | *and Loomis, A. L.* The pressure of aqueous vapour in the alveolar air | 77, 35, 1932. |
| Christy, R. K. | The migrations of chlorine ions | 63, x, 1927. |
| Churchill, E. D. | *, Nakazawa, F. and Drinker, C. K.* The circulation of body fluids in the frog | 63, 304, 1927. |

| | | |
|---|---|---|
| Clark, A. J. | The reaction between acetyl choline and muscle cells | 61, 530, 1926. |
| ,, | The antagonism of acetyl choline by atropine | 61, 547, 1926. |
| ,, | The reaction between acetyl choline and muscle cells. Part II | 64, 123, 1927. |
| ,, | *and White, A. C.* The action of acetyl choline on the cardiac frequency and the blood-pressure of the cat | 64, xi, 1927. |
| ,, | *and White, A. C.* The oxygen consumption of the frog's heart. I | 66, 185, 1928. |
| ,, | *and White, A. C.* Oxygen consumption of the frog's heart. II. Effect of lipoids, ions and narcotics | 66, 203, 1928. |
| ,, | , *Percival, G. H. and Stewart, C. P.* Action of calcium ions on the frog's heart | 66, 346, 1928. |
| ,, | *and White, A. C.* The oxygen consumption of the auricles of the frog and of the tortoise | 68, 406, 1930. |
| ,, | *and White, A. C.* Action of ionic changes on the oxygen consumption of the frog's auricle | 68, 433, 1930. |
| ,, | , *Gaddie, R. and Stewart, C. P.* The metabolism of the frog's isolated heart | 70, vii, 1930. |
| ,, | , *Gaddie, R. and Stewart, C. P.* The metabolism of the isolated heart of the frog | 72, 443, 1931. |
| ,, | , *Eggleton, M. Grace and Eggleton, P.* Phosphagen and cardiac function | 72, 25P, 1931. |
| ,, | , *Eggleton, M. Grace and Eggleton, P.* Phosphagen and cardiac function (2) | 74, 7P, 1931. |
| ,, | , *Gaddie, R. and Stewart, C. P.* The carbohydrate metabolism of the isolated heart of the frog | 75, 311, 1932. |
| ,, | , *Gaddie, R. and Stewart, C. P.* The anaerobic activity of the isolated frog's heart | 75, 321, 1932. |
| ,, | , *Eggleton, M. Grace and Eggleton, P.* Phosphagen in the perfused heart of the frog | 75, 332, 1932. |
| ,, | , *Gaddie, R. and Stewart, C. P.* The influence of oxygen pressure on the metabolism of the isolated cold-blooded heart | 77, 432, 1933. |
| ,, | , *Gaddie, R. and Stewart, C. P.* Asphyxial arrest of the isolated frog's ventricle | 82, 265, 1934. |
| ,, | , *Gaddie, R. and Stewart, C. P.* The aerobic metabolism of the isolated frog's heart poisoned by iodoacetic acid | 90, 335, 1937. |
| Clark, A. M. | *Bell, J. R., —— and Cuthbertson, D. P.* Experimental traumatic shock | 92, 361, 1938. |
| Clark, D. A. | Muscle counts of motor units | 70, xviii, 1930. |
| Clark, G. A. | The influence of the vagus on sugar tolerance | 61, xiii, 1926. |
| ,, | The influence of the vagus on the islets of Langerhans. Part II. The effect of cutting the vagus upon sugar tolerance | 61, 576, 1926. |
| ,, | *Eaves, E. C. and.* (Preliminary communication.) Changes in the pituitary after section of the right vagus | 62 i, 1926. |
| ,, | (Preliminary communication.) The antagonism of pituitrin and insulin | 62, viii, 1926. |
| ,, | The influence of the vagus on the islets of Langerhans. Part III. Further experiments on vagotomy | 64, 229, 1927. |

| | | |
|---|---|---|
| Clark, G. A. | The origin of the glucose in the hyperglycaemia induced by pituitrin | 64, 324, 1928. |
| " | A comparison of the effects of adrenaline and pituitrin on the portal circulation | 66, 274, 1928. |
| " | The action of posterior pituitary pressor extract on the rabbit's vascular system | 68, 166, 1929. |
| " | The selective vaso-constrictor action of adrenaline | 69, 171, 1930. |
| " | The selective vaso-constrictor action of pituitary pressor extract | 70, 53, 1930. |
| " | The influence of the vagus nerves on the secretions of insulin | 73, 297, 1931. |
| " | *and Holling, H. E.* The protein content and osmotic pressure in serum of young animals | 73, 305, 1931. |
| " | Some foetal blood-pressure reactions | 74, 391, 1932. |
| " | The vaso-dilator action of adrenaline | 80, 429, 1934. |
| " | The development of blood-pressure reflexes | 83, 229, 1934. |
| " | *and Winter, L. B.* Sugar in lymph | 83, 49*P*, 1935. |
| " | Adrenaline vaso-dilatation in voluntary muscle | 84, 344, 1935. |
| Clark-Kennedy, A. E. | *, Bradbrooke, H.N. and Owen, T.* The effect of breathing carbon dioxide on muscular exercise in man | 61, x, 1926. |
| " | *and Owen, T.* The effect of high and low oxygen pressure on the respiratory exchange during exercise | 62, xiv, 1926. |
| " | *Aitken, R. S. and.* The concentration of $CO_2$ in successive portions of an expired breath | 64, xvii, 1927. |
| " | *Aitken, R. S. and.* On the fluctuation in the composition of the alveolar air during the respiratory cycle in muscular exercise | 65, 389, 1928. |
| Clarkson, P. W. | Calcium chloride aciduria | 75, 29*P*, 1932. |
| Cleghorn, R. A. | *Anderson, I. A., ——, Macleod, J. J. R. and Peterson, J. M.* The effect of evisceration on the respiratory metabolism of the decerebrate preparation | 71, 391, 1931. |
| " | *and Peterson, J. M.* The reappearance of glycogen in the muscles of the decerebrate cat after its removal during tetanic contraction | 74, 338, 1932. |
| " | Observations on extracts of beef adrenal cortex and elasmobranch interrenal body | 75, 413, 1932. |
| " | The effects of injections of extracts of adrenal cortex on the development and sex functions of the albino mouse | 76, 193, 1932. |
| " | *, Cleghorn, S. M. M., Forster, M. G. and McVicar, G. A.* Some factors influencing the survival of rats after adrenalectomy and the suitability of the young rat for testing the potency of adrenal cortical extracts | 86, 229, 1936. |
| " | *Armstrong, C. W. J., ——, Fowler, J. L. A. and McVicar, G. A.* Some effects of stimulation of sympathetic nerves and injection of pressor drugs in adrenalectomized cats | 96, 146, 1939. |

| | | |
|---|---|---|
| Clegnorn, S. M. M. | *Clegnorn, R. A.*, ——, *Forster, M. G. and McVicar, G. A.* Some factors influencing the survival of rats after adrenalectomy and the suitability of the young rat for testing the potency of adrenal cortical extracts | 86, 229, 1936. |
| Clifford, Winifred Mary | A substitute for blood fibrin in work on digestion | 62, xiii, 1926. |
| Code, C. F. | The quantitative estimation of histamine in the blood | 89, 257, 1937 |
| " | The source in blood of the histamine-like constituent | 90, 349, 1937. |
| " | The histamine-like activity of white blood cells | 90, 485, 1937. |
| " | *and Ing, H. R.* The isolation of histamine from the white cell layer of centrifuged rabbit blood | 90, 501, 1937. |
| " | *, Evans, C. Lovatt and Gregory, R. A.* Blood histamine and cardiac activity | 92, 344, 1938. |
| Colle, J. | *, Duke-Elder, P. M. and Duke-Elder, W. S.* Studies on the intra-ocular pressure. Part I. The action of drugs on the vascular and muscular factors controlling the intra-ocular pressure | 71, 1, 1931. |
| " | *Bouckaert, J. P. and.* Evolution of excitatory disturbance in electrical stimulation of tissues | 90, 75*P*, 1937. |
| Collier, R. A. | *, Densham, H. B. A. R.* and *Wells, H. M.* The compensation by the skin vessels during over-ventilation in man | 64, xxiii, 1927. |
| Collip, J. B. | A non-specific pressor principle derived from a variety of tissues | 66, 416, 1928. |
| " | *Anderson, Evelyn M. and.* Studies on the physiology of the thyreotropic hormone of the anterior pituitary | 82, 11, 1934. |
| " | *Black, P. T.*, —— *and Thomson, D. L.* The effect of anterior pituitary extracts on acetone body excretion in the rat | 82, 385, 1934. |
| " | *, Thomson, D. L. and Toby, G.* The effect of adrenaline on muscle glycogen in adrenalectomized, thyroidectomized, and hypophysectomized rats | 88, 191 1936. |
| Collison, L. W. | *Richards, A. N. and.* An apparatus for the continuous recording of the oxygen consumption of small animals | 66, 299, 1928. |
| " | (Introduced by H. H. Dale.) A convenient form of fluid electrode | 80, 14*P*, 1933. |
| Condon, N. E. | A simple adjustment to deliver make induction shocks | 64, viii, 1927. |
| " | A method for showing continuous tracings on the screen | 64, xiii, 1927. |
| Conway, E. J. | *and Kane, F.* The equation expressing the excretion of a diuretic and its relation to diffusion processes | 61, 595, 1926. |

| | | |
|---|---|---|
| Conway, E. J. | *Boyle, P. J.*, ——, *Kane, F. and O'Reilly, H. L.* Volume of interfibre spaces in frog muscle and the calculation of concentrations in the fibre water | 99, 401, 1941. |
| ,, | *Boyle, P. J. and.* Potassium accumulation in muscle and associated changes | 100, 1, 1941. |
| Conybeare, E. T. | , *Denelsen, H. B. A. R., Moizels, M. and Pembrey, M. S.* Observations upon the respiratory exchange, temperature and sugar in the blood of anaesthetised animals | 64, xix, 1927. |
| Cook, L. C. | *and Hurst, R. H.* Blood lactic acid in man during rest | 79, 443, 1933. |
| Cook, R. P. | The antagonism of acetyl choline by methylene blue | 62, 160, 1926. |
| Cooke, A. M. | *Brieger, E.*, —— *and Priestley, J. G.* Measurement of the circulation rate in man | 85, 3P, 1935. |
| ,, | *and Priestley, J. G.* Measurement of the cardiac output in man | 90, 104, 1937. |
| Cooper, Sybil | The conduction of a nervous impulse in a narcotised region of nerve | 61, 305, 1926. |
| ,, | *and Creed, R. S.* Reflex effects of active muscular contraction | 62, 273, 1927. |
| ,, | *and Creed, R. S.* More reflex effects of active muscular contraction | 64, 199, 1927. |
| ,, | The relation of active to inactive fibres in fractional contraction of muscle | 67, 1, 1929. |
| ,, | *and Eccles, J. C.* Isometric muscle twitch | 69, iii, 1929. |
| ,, | *and Eccles, J. C.* The isometric responses of mammalian muscles | 69, 377, 1930. |
| ,, | *and Sherrington, C. S.* Degeneration of peripheral nerves after spinal transection in the monkey | 77, 18P, 1932. |
| ,, | , *Creed, R. S. and Granit, R.* A note on the retinal action potential of the human eye | 79, 185, 1933. |
| Cope, C. L. | Inorganic sulphate excretion by the human kidney | 76, 329, 1932. |
| ,, | The excretion of non-metabolized sugars by the mammalian kidney | 80, 238, 1933. |
| ,, | The excretion of cyanol by the mammalian kidney | 80, 253, 1933. |
| ,, | The young chick as test for the thyrotropic hormone | 94, 358, 1938. |
| Cope, O. | , *Corkill, A. B., Markes, H. P. and Ochoa, S.* A study of chemical changes associated with muscular contraction in normal and adrenalectomized animals | 82, 305, 1934. |
| ,, | *and Corkill, A. B.* The actions of insulin and adrenaline in young adrenalectomized rabbits | 82, 407, 1934. |
| ,, | *and Marks, H. P.* Further experiments on the relation of the pituitary gland to the action of insulin and adrenaline | 83, 157, 1934. |
| ,, | The relation of the pituitary to liver glycogen production and utilization | 88, 401, 1937. |

| | | |
|---|---|---|
| Cope, O. | *and Thompson, R. H.* Adrenaline and the blood lactic acid level in hypophysectomized rabbits | 88, 417, 1937. |
| Coppée, G. | *Bacq, Z. M. and.* Effect of preganglionic nerve section on ganglionic transmission | 92, 17*P*, 1938. |
| Corbett, H. V. | Hue discrimination in normal and abnormal colour vision | 88, 176, 1936. |
| Cordero, N. | *Abeloos, M., Barcroft, J., ——, Harrison, T. R. and Sendroy, J.* The measurement of the oxygen capacity of haemoglobin | 66, 262, 1928. |
| „ | *Adair, G. S., —— and Shen, T. C.* The effect of temperature on the equilibrium of carbon dioxide and blood and the heat of ionization of haemoglobin | 67, 288, 1929. |
| Cordier, R. | *and Gérard, P.* Athrophagocytosis in the open nephrons of *Xenopus laevis* | 90, 77*P*, 1937. |
| Corkill, A. B. | *and Marks, H. P.* The effect of adrenaline on muscle glycogen | 70, 67, 1930. |
| „ | *, Dale, H. H. and Marks, H. P.* The respiratory quotient of the eviscerated spinal cat | 70, 86, 1930. |
| „ | The influence of insulin on the liver glycogen of the common grey Australian 'opossum' (*Trichosurus*) | 75, 29, 1932. |
| „ | The influence of toxaemia on carbohydrate metabolism | 75, 381, 1932. |
| „ | *and Tiegs, O. W.* The effect of sympathetic nerve stimulation on the power of contraction of skeletal muscle | 78, 161, 1933. |
| „ | *, Marks, H. P. and White, W. E.* Relation of the pituitary gland to the action of insulin and adrenaline | 80, 193, 1933. |
| „ | *Cope, O., ——, Marks, H. P. and Ochoa, S.* A study of chemical changes associated with muscular contraction in normal and adrenalectomized animals | 82, 305, 1934. |
| „ | *and Ochoa, S.* Toxaemia and carbohydrate metabolism | 82, 399, 1934. |
| „ | *Cope, O. and.* The actions of insulin and adrenaline in young adrenalectomized rabbits | 82, 407, 1934. |
| „ | *, Marks, H. P. and Soskin, S.* The effects of sympathetic stimulation and of adrenaline on muscle glycogen | 83, 26, 1934. |
| Cotton, F. S. | The relation of athletic status to the pulse rate, in men and women | 76, 39, 1932. |
| Countice, F. C. | The gaseous tensions in the brain | 100, 192, 1941. |
| „ | The effect of oxygen lack on the cerebral circulation | 100, 198, 1941. |
| Cowan, Campbell | *Best, C. H., —— and Maclean, D. L.* Heparin and the formation of white thrombi | 92, 20, 1938. |
| Cowan, C. R. | *and Solandt, O. M.* The duration of the recovery period following strenuous muscular exercise, measured to a base line of steady, mild exercise | 89, 462, 1937. |

| | | |
|---|---|---|
| Cowan, S. L. | The effect of veratrine on the electrical response of crab's nerve | 77, 27*P*, 1932. |
| " | *and Ing, H. R.* The effect of quaternary ammonium salts upon nerve. (Preliminary communication) | 79, 75, 1933. |
| " | *and Ing, H. R.* The curariform activities of strychnine metho-salts and curarine chloride | 82, 432, 1934. |
| " | *Bayliss, L. E., —— and Scott, D., Jr.* The action potentials in *Maia* nerve before and after poisoning with veratrine and yohimbine hydrochlorides | 83, 439, 1935. |
| " | *and Ing, H. R.* Quaternary ammonium salts and the action currents in nerve | 84, 90, 1935. |
| " | The pH- and $CO_2$-combining capacity of *Maia* blood | 84, 53*P*, 1935. |
| " | The effect of certain substances on the transmission of excitation from motor nerve to voluntary muscle | 86, 61*P*, 1936. |
| " | The effects of drugs on transmission from nerve to voluntary muscle and 'accommodation' to different rates of destruction of the chemical transmitter | 87, 43*P*, 1936. |
| " | The initiation of all-or-none responses in muscle by acetylcholine | 88, 3*P*, 1936. |
| " | *and Walter, W. G.* The effects of tetra-ethyl-ammonium iodide on the electrical response and the accommodation of nerve | 91, 101, 1937. |
| " | The action of eserine-like and curare-like substances on the responses of frog's nerve-muscle preparations to repetitive stimulation | 93, 215, 1938. |
| Coward, Katharine H. | *and Burn, J. H.* The variation in the unit of the oestrus-producing hormone | 63, 270, 1927. |
| " | The influence of vitamin A deficiency on the oestrous cycle of the rat | 67, 26, 1929. |
| " | , *Morgan, Barbara G. E. and Dyer, F. J.* The influence of vitamin A deficiency on the oestrous cycle of the rat. II | 69, 349, 1930. |
| " | , *Morgan, Barbara G. E. and Waller, Letitia.* The influence of a deficiency of vitamin $B_1$ and of riboflavin on the reproduction of the rat | 100, 423, 1942. |
| Cowie, A. T. | *Barcroft, J., Barron, D. H., ——, Forsham, P. H. and MacDonald, A.* The effect of asphyxia on inhibition of respiratory movement in the sheep's foetus | 96, 12*P*, 1939. |
| " | *Barcroft, J., Barron, D. H., —— and Forsham, P. H.* The oxygen supply of the foetal brain of the sheep and the effect of asphyxia on foetal respiratory movement | 97, 338, 1940. |
| Crabtree, Muriel G. | *Apperly, F. L. and.* The relation of gastric function to the chemical composition of the blood | 73, 331, 1931. |
| Craib, W. H. | The electrical responses from a strip of curarised skeletal muscle under various conditions | 64, xxxv, 1927. |

| | | |
|---|---|---|
| Crair, W. H. | A study of the electrical field surrounding skeletal muscle | 66, 40, 1928. |
| Craik, K. J. W. | , *Rawdon-Smith, A. F. and Sturdy, E. S.* Note on the effect of A.C. on the human ear | 90, 3P, 1937. |
| " | The effect of adaptation on differential brightness discrimination | 92, 406, 1938. |
| " | Sensory adaptation and the mechanism of vision | 96, 1P, 1939. |
| " | , *Rawdon-Smith, A. F. and Sturdy, E. S.* The transient response of a primitive ear | 96, 18P, 1939. |
| " | Transmission of light by the eye media | 98, 179, 1940. |
| Cramer, W. | *and Ludford, R. J.* On cellular activity and cellular structure as studied in the thyroid gland | 61, 398, 1926. |
| " | *and Ludford, R. J.* On the cellular mechanism of bile secretion and its relation to the Golgi apparatus of the liver cell | 62, 74, 1926. |
| Craw, C. Helen | The spinal reflexes of the skate | 63, 61, 1927. |
| Creed, R. S. | *Cooper, Sybil and.* Reflex effects of active muscular contraction | 62, 273, 1927. |
| " | *Cooper, Sybil and.* More reflex effects of active muscular contraction | 64, 199, 1927. |
| " | *and Eccles, J. C.* The incidence of central inhibition on restricted fields of motor-units | 66, 109, 1928. |
| " | *and Granit, R.* On the latency of negative after-images following stimulation of different areas of the retina | 66, 281, 1928. |
| " | *and Harding, R. D.* Latency of after-images and interaction between the two retino-cerebral apparatuses in man | 69, 423, 1930. |
| " | The after-image of black. With a mathematical appendix by J. H. C. Thompson | 73, 247, 1931. |
| " | *and Ruch, T. C.* Regional variations in sensitivity to flicker | 74, 407, 1932. |
| " | *and Herts, D. H.* The action of strychnine on Hering-Breuer reflexes | 78, 85, 1933. |
| " | *and Granit, R.* Observations on the retinal action potential with especial reference to the response to intermittent stimulation | 78, 419, 1933. |
| " | *Cooper, Sybil, —— and Granit, R.* A note on the retinal action potential of the human eye | 79, 185, 1933. |
| " | Observations on binocular fusion and rivalry | 84, 381, 1935. |
| Crew, W. H. | *and Whittle, C. H.* On the absorption of ultra-violet radiation by human sweat | 93, 335, 1938. |
| Croll, Margaret M. | Nerve fibres in the pituitary of a rabbit | 66, 316, 1928. |
| Crowden, G. P. | *and Pearson, M. G.* The effect of cold on the adrenaline content of the suprarenal glands | 65, xxv, 1928. |
| " | *and Pearson, M. G.* The effect of morphia on the adrenaline content of the suprarenal glands | 65, xxxii, 1928. |
| " | The replacement of depleted adrenaline in the suprarenals | 68, 313, 1929. |
| " | The effect of duration of work on the efficiency of muscular work in man | 80, 394, 1934. |

| | | |
|---|---|---|
| Crowden, G. P. | The relative energy expenditure in muscular exercises performed in air and in water | 84, 31*P*, 1935. |
| Cruickshank, E. W. H. | The spleen as a reservoir for blood and haemoglobin | 61, ix, 1926. |
| ,, | *and Rau, A. S.* Observations on the effects of temperature and of drugs on the coronary and systemic arteries | 61, xviii, 1926. |
| ,, | On the output of haemoglobin and blood by the spleen | 61, 455, 1926. |
| ,, | *and Rau, A. S.* Reactions of isolated systemic and coronary arteries | 64, 65, 1927. |
| ,, | Automatic shaker for gas analysis | 69, xxix, 1930. |
| ,, | *and Startup, C. W.* The utilization of sugar by the lungs | 70, v, 1930. |
| ,, | The effect of insulin on the relation between the oxidation and synthesis of sugar | 76, 6*P*, 1932. |
| ,, | *and Startup, C. W.* The effect of insulin on the respiratory quotient, oxygen consumption, sugar utilization, and glycogen synthesis in the normal mammalian heart in hyper- and hypoglycaemia | 77, 365, 1933. |
| ,, | On the significance of the action of insulin on the R.Q. of the diabetic heart | 79, 2*P*, 1933. |
| ,, | *and Startup, C. W.* The respiratory quotient, oxygen consumption and glycogen content of the mammalian heart in aglycaemia | 80, 179, 1933. |
| ,, | *and Startup, C. W.* The action of insulin on the R.Q., oxygen utilization, $CO_2$ production and sugar utilization in the mammalian diabetic heart | 81, 153, 1934. |
| ,, | The validity of R.Q. determinations in the mammalian heart | 81, 45*P*, 1934. |
| ,, | A magnetic blood oxygenator | 82, 26, 1934. |
| ,, | , *MacDonald, I. and Startup, C. W.* The effect of insulin aglycaemia upon the amino-acid utilization of the mammalian heart. (Preliminary communication) | 82, 18*P*, 1934. |
| ,, | *and McClure, G. S.* On the question of the utilization of amino acids and fat by the mammalian heart | 86, 1, 1936. |
| ,, | *Burns, W. and.* Changes in creatine, phosphagen and adenylpyrophosphate in relation to the gaseous metabolism of the heart | 91, 314, 1937. |
| ,, | *and Kosterlitz, H. W.* The utilisation of fat by the aglycaemic mammalian heart | 99, 208, 1941. |
| Culhane, Kathleen | *and Underhill, S. W. F.* Some factors affecting the response of rabbits towards insulin | 65, xx, 1928. |
| Cullis, Winifred C. | , *Rendel, Olive and Dahl, Ellen.* The application of the ethyl iodide method to the determination of the circulation rate in women | 62, 104, 1926. |
| ,, | , *Rendel, Olive and Dahl, Ellen.* Observations on the ethyl iodide method for the determination of heart output | 64, 39, 1927. |
| ,, | *and Scarborough, Eleanor M.* The influence of temperature in the frog. (1) On the circulation, and (2) On the circulatory effects of adrenaline and of sodium nitrite | 75, 33, 1932. |

| | | |
|---|---|---|
| Cullis, Winifred C. | *and Lucas, C. L. T.* Action of acetylcholine on the aneural chick heart | 86, 53P, 1934. |
| Cummins, J. N. | Potassium content of human muscle | 96, 12P, 1939. |
| Cunningham, J. T. | *and Smart, W. A. M.* The relation of corpora lutea to gestation and anterior pituitary in some lower vertebrates | 80, 4P, 1933. |
| Curry, R. O. L. | *and Richardson, E. G.* The application of the cathode-ray oscillograph in speech analysis | 83, 45P, 1935. |
| „ | The mechanism of pitch change in the voice | 91, 254, 1937. |
| Curtis, F. R. | *Vincent, Swale and.* Adrenin and the splanchnic nerve | 63, 151, 1927. |
| Cuthbertson, D. P. | *Cathcart, E. P. and.* The composition and distribution of the fatty substances of the human subject | 72, 349, 1931. |
| „ | *and Robertson, J. S.* The metabolic response to injury | 89, 53P, 1937. |
| „ | *Bell, J. R., Clark, A. M. and.* Experimental traumatic shock | 92, 361, 1938. |
| „ | *Bell, G. H., —— and Orr, J.* Strength and size of bone in relation to calcium intake | 100, 299, 1941. |
| Da Fano, C. | Peculiar substance in the central nervous system of cats kept on autoclaved meat | 62, xiii, 1926. |
| Dahl, Ellen | *Cullis, Winifred C., Rendel, Olive and.* The application of the ethyl iodide method to the determination of the circulation rate in women | 62, 104, 1926. |
| „ | *Cullis, Winifred C., Rendel, Olive and.* Observations on the ethyl iodide method for the determination of heart output | 64, 39, 1927. |
| Dale, Alison S. | A reversed action of the chorda tympani on the venous outflow from the submaxillary gland | 70, 449, 1930. |
| „ | The relation between amplitude of contraction and rate of rhythm in the mammalian ventricle. (Including interpretation of the apparent indirect action of the vagus on amplitude of ventricular contraction) | 70, 455, 1930. |
| „ | *and Drury, A. N.* The refractory period of the perfused rabbit's ventricle | 74, 13P, 1932. |
| „ | The staircase phenomenon in ventricular muscle | 75, 1, 1932. |
| „ | *and Drury, A. N.* The refractory period of mammalian cardiac muscle, with especial reference to Purkinje tissue | 76, 201, 1932. |
| „ | On the supposed inhibitory action of the auricles on the amplitude of the ventricular contractions in the heart of the frog | 78, 302, 1933. |
| „ | The relation between metabolic processes and the ventricular electrogram | 84, 433, 1935. |
| „ | The action of certain enzyme poisons on the frog's auricle | 89, 316, 1937. |
| Dale, H. H. | *Burn, J. H. and.* The vaso-dilator action of Histamine and its physiological significance | 61, 185, 1926. |

| | | |
|---|---|---|
| DALE, H. H. | *Best, C. H., ——, Dudley, H. W. and Thorpe, W. V.* The nature of the vaso-dilator constituents of certain tissue extracts | 62, 397, 1927. |
| " | *and Richards, A. N.* The depressor (vaso-dilator) action of adrenaline | 63, 201, 1927. |
| " | *and Schuster, E. H. J.* A double perfusion-pump | 64, 356, 1928. |
| " | *and Dudley, H. W.* The presence of histamine and acetylcholine in the spleen of the ox and the horse | 68, 97, 1929. |
| " | *Corkill, A. B., —— and Marks, H. P.* The respiratory quotient of the eviscerated spinal cat | 70, 86, 1930. |
| " | *and Gaddum, J. H.* Reactions of denervated voluntary muscle, and their bearing on the mode of action of parasympathetic and related nerves | 70, 109, 1930. |
| " | *Bauer, W., ——, Poulsson, L. T. and Richards, D. W.* The control of circulation through the liver | 74, 343, 1932. |
| " | Nomenclature of fibres in the autonomic system and their effects | 80, 10*P*, 1933. |
| " | *and Feldberg, W.* The chemical transmitter of effects of the gastric vagus | 80, 16*P*, 1933. |
| " | *and Feldberg, W.* The chemical transmitter of vagus effects to the stomach | 81, 320, 1934. |
| " | *and Feldberg, W.* Chemical transmission at motor nerve endings in voluntary muscle | 81, 39*P*, 1934. |
| " | *and Feldberg, W.* The chemical transmitter of nervous stimuli to the sweat glands of the cat | 81, 40*P*, 1934. |
| " | *and Feldberg, W.* The chemical transmission of secretory impulses to the sweat glands of the cat | 82, 121, 1934. |
| " | *Brown, G. L. and.* Perfusion with solution of haemolysed red corpuscles | 86, 42*P*, 1936. |
| " | *, Feldberg, W. and Vogt, Marthe.* Release of acetylcholine at voluntary motor nerve endings | 86, 353, 1936. |
| " | *Brown, G. L., —— and Feldberg, W.* Chemical transmission of excitation from motor nerve to voluntary muscle | 87, 42*P*, 1936. |
| " | *Brown, G. L., —— and Feldberg, W.* Reactions of the normal mammalian muscle to acetylcholine and to eserine | 87, 394, 1936. |
| " | Du Bois-Reymond and chemical transmission | 91, 4*P*, 1937. |
| DALY, I. DE BURGH | A blood velocity recorder | 61, xxi, 1926. |
| | *and Verney, E. B.* Cardiovascular reflexes | 61, 268, 1926. |
| " | *and Verney, E. B.* The localisation of receptors involved in the reflex regulation of the heart rate | 62, 330, 1927. |
| " | Negative pressure pulmonary ventilation in the heart lung preparation | 63, 81, 1927. |
| " | The conditions governing the blood capacity of the lungs | 65, 422, 1928. |
| " | A Brodie-Starling kymograph extension for doubling the recording surface | 69, xxxiv, 1930. |
| " | *and Thorpe, W. V.* A variable cam poppet valve for negative pressure respiration | 69, xxxvii, 1930. |

| | | |
|---|---|---|
| Daly, I. de Burgh | The resistance of the pulmonary vascular bed | 69, 238, 1930. |
| „ | *and Thorpe, W. V.* An isolated mammalian heart preparation capable of performing work for prolonged periods | 77, 10*P*, 1932. |
| „ | A seven horse-power Austin engine adapted as a blood pump | 77, 36*P*, 1933. |
| „ | *and Thorpe, W. V.* An isolated mammalian heart preparation capable of performing work for prolonged periods | 79, 199, 1933. |
| „ | *and Schild, H.* Inactivation by histaminase preparations of the histamine-like substance recovered from lungs during anaphylactic shock | 83, 3*P*, 1934. |
| „ | *, Mark, E. G. L. and Petrovskaia, Barbara.* A broncho-constrictor action of adrenaline following injections of pituitrin, pitocin or pitressin in isolated perfused lungs | 89, 26*P*, 1937. |
| „ | The pulmonary arterial pressure in the unanaesthetized dog | 91, 14*P*, 1937. |
| Danielli, J. F. | *and Dawson, H.* The permeability of the erythrocyte to cations | 92, 25*P*, 1938. |
| „ | Changes in ease of extraction of myosotin-type proteins as a result of activity | 92, 36*P*, 1938. |
| „ | The site of resistance to diffusion through the cell membrane, and the role of partition coefficients | 96, 3*P*, 1939. |
| „ | The resistance of nerve in relation to interpolar length | 96, 65, 1939. |
| „ | The diffusion of large molecules through the cell membrane | 98, 19*P*, 1940. |
| „ | Capillary permeability and oedema in the perfused frog | 98, 109, 1940. |
| „ | On the permeability change of stimulated nerve | 100, 117, 1941. |
| „ | A method for estimating the fraction of the volume of a muscle contained in the vascular system | 100, 239, 1941. |
| „ | *and Dawson, H.* The volume of the vascular system, and penetration of sugars from the vascular system into the intercellular space | 100, 246, 1941. |
| Daoud, K. M. | *and Gohar, H. A. F.* The correlation between the action of insulin and adrenaline upon the muscle and liver glycogen | 80, 314, 1933. |
| Dautrebande, L. | *Bouckaert, J. J., —— and Heymans, C.* Sinus caroticus and respiratory reflexes. Influence of $CO_2$, hydrogen ion concentration and anoxaemia | 71, v, 1930. |
| „ | *André, M., Barzin, J., Charlier, R., ——, Demanez, L. and Tawastsjerna, M.* Influence of prolonged and repeated inhalations of carbonic acid on the blood and diuresis | 90, 74*P*, 1937. |
| Davenport, H. W. | *and Fisher, R. B.* Carbonic anhydrase in the gastro-intestinal mucosa | 94, 16*P*, 1938. |
| „ | Gastric carbonic anhydrase | 97, 32, 1939. |

| | | |
|---|---|---|
| Davidson, J. N. | *and Garry, R. C.* The absorption of monosaccharides from the large intestine of the rat under urethane anaesthesia | 96, 172, 1939. |
| ,, | *and Garry, R. C.* The absorption of monosaccharides from the distal small intestine of anaesthetized cats | 97, 509, 1940. |
| ,, | *Andrew, B. L., —— and Garry, R. C.* The absorption of water from the colon of the rat under urethane anaesthesia | 98, 487, 1940. |
| ,, | *and Garry, R. C.* The absorption of pentoses from the small intestine of the rat under urethane anaesthesia | 99, 239, 1941. |
| Davies, F. | *and Francis, E. T. B.* The glycogen content of the frog's heart | 100, 329, 1941. |
| Davies, H. W. | *and Robinovich, M.* The effects of subcutaneous and intraperitoneal injection of oxygen upon the oxygen saturation of the arterial blood | 64, xxxviii, 1927. |
| Davies, O. V. Lloyd | *Ascroft, P. B. and.* The cause of death in acute intestinal obstruction; the nervous factor | 91, 16*P*, 1937. |
| Davis, E. | Relations between the actions of adrenaline, acetylcholine, and ions, on the perfused heart | 71, 431, 1931. |
| ,, | *and Folley, S. J.* Effect of activated charcoal on frog heart perfusate | 73, 9*P*, 1931. |
| Davis, J. C. | *Anrep, G. V., —— and Volhard, E.* The effect of pulse pressure upon the coronary blood flow | 73, 405, 1931. |
| Dawson, H. | *Benham, G. H., —— and Duke-Elder, W. S.* The total osmotic concentrations in serum and aqueous humour | 89, 61, 1937. |
| ,, | *Danielli, J. F. and.* The permeability of the erythrocyte to cations | 92, 25*P*, 1938. |
| ,, | The permeability of cat erythrocytes to sodium and potassium | 95, 38*P*, 1939. |
| ,, | The distribution of sodium between the aqueous humour and blood plasma of cats | 96, 194, 1939. |
| ,, | *and Quilliam, J. P.* The permeability of the blood-aqueous humour barrier to potassium, sodium, and chloride in the surviving eye | 98, 141, 1940. |
| ,, | *Danielli, J. F. and.* The volume of the vascular system, and penetration of sugars from the vascular system into the intercellular space | 100, 246, 1941. |
| Davy, Anna | *and Huggett, A. St G.* The autolysis of the placental glycogen | 81, 183, 1934. |
| Dawes, G. S. | The vaso-dilator action of potassium | 99, 224, 1941. |
| Dawson, R. F. | *and Robson, J. M.* The pharmacological actions of diethyl-stilboestrol and other oestrogenic and non-oestrogenic substances | 95, 420, 1939. |
| ,, | *and Robson, J. M.* The effects of diethyl-stilboestrol on striped muscle | 96, 23*P*, 1939. |

| | | |
|---|---|---|
| Deanesly, Ruth | , *the late Fee, A. R. and Parkes, A. S.* Studies on ovulation. II. The effect of hypophysectomy on the formation of the corpus luteum | 70, 38, 1930. |
| „ | The effects of oestrin on the pseudo-pregnant mouse | 72, 62, 1931. |
| „ | *and Parkes, A. S.* The effect of hysterectomy on the oestrous cycle of the ferret | 78, 80, 1933. |
| „ | *and Parkes, A. S.* Note on the subcutaneous absorption of oils by rats and mice, with special reference to the assay of oestrin | 78, 155, 1933. |
| „ | *and Parkes, A. S.* Size changes in the seminal vesicles of the mouse during development and after castration | 78, 442, 1933. |
| „ | Androgenic activity of ovarian grafts | 92, 34*P*, 1938. |
| Debois, G. | Glycogen recovery in mammalian muscle as an insulin function | 70, II, 1930. |
| Delaunois, A. L. | A device for faradic stimulation | 96, 56*P*, 1939. |
| „ | A simple radio-electric relay for thermo-regulators | 96, 58*P*, 1939. |
| Demanez, L. | *André, M., Barzin, J., Charlier, R., Dautrebande, L., —— and Tavaststjerna, M.* Influence of prolonged and repeated inhalations of carbonic acid on the blood and diuresis | 90, 74*P*, 1937. |
| Denny-Brown, D. E. | *and Liddell, E. G. T.* Observations on the motor twitch and on reflex inhibition of the tendon-jerk of m. supraspinatus | 63, 70, 1927. |
| „ | *and Liddell, E. G. T.* The stretch reflex as a spinal process | 63, 144, 1927. |
| „ | *and Liddell, E. G. T.* Extensor reflexes in the fore-limb | 65, 305, 1928. |
| „ | *and Sherrington, C. S.* Subliminal fringe in spinal flexion | 66, 175, 1928. |
| „ | *and Ritchie Russell, W.* Traumatic shock in experimental cerebral concussion | 99, 6*P*, 1941. |
| „ | *and Ritchie Russell, W.* Experimental cerebral concussion | 99, 153, 1940. |
| Densham, B. | The adjuvant action of the lactate ion on the vaso-dilator effect of sodium nitrite | 63, 175, 1927. |
| Densham, H. B. A. R. | *Conybeare, E. T., ——, Maizels, M. and Pembrey, M. S.* Observations upon the respiratory exchange, temperature and sugar in the blood of anaesthetised animals | 64, xix, 1927. |
| „ | *Collier, R. A., —— and Wells, H. M.* The compensation by the skin vessels during over-ventilation in man | 64, xxiii, 1927. |
| Derouaux, G. | *and Roskam, J.* Adrenaline, adrenalone and mean bleeding time | 90, 65*P*, 1937. |
| Desbö, D. E. | The influence of calcium on the isometric response of the frog's heart | 61, 484, 1926. |
| Deutsch, W. | *and Schlapp, W.* The adrenaline content of the suprarenal glands in scurvy and in inanition | 83, 478, 1935. |

| | | |
|---|---|---|
| Deutsch, W. | An improvement of Warburg's method of cutting tissue slices for respiratory experiments | 87, 56P, 1936. |
| " | *and Raper, H. S.* Respiration and functional activity | 87, 275, 1936. |
| " | *and Raper, H. S.* The respiration and metabolism of submaxillary gland tissue of the cat | 92, 439, 1938. |
| Devadatta, S. C. | Distribution of lactate between blood corpuscles and plasma | 75, 21P, 1932. |
| " | The diffusion of lactate into and from muscle | 79, 194, 1933. |
| Dickens, F. | *Allan, H., —— and Dodds, E. C.* Observations on the standardization of the water-soluble, oestrus-producing hormone | 68, 348, 1930. |
| Dickinson, Sylvia | The efficiency of bicycle-pedalling as affected by speed and load | 67, 242, 1929. |
| " | , *Haward, R. E. and Platt, B. S.* The measurement of the hydrogen-ion concentration of blood by the glass electrode | 78, 28P, 1933. |
| " | *Bain, W. A. and.* On the inactivation of adrenaline by mammalian liver *in vitro* | 93, 54P, 1938. |
| " | Glass electrods for the measurement of pH of fluids at body temperature | 95, 15P, 1939. |
| Dijkstra, B. | *and Dirken, M. N. J.* The effect of forced breathing on the motor chronaxie | 96, 109, 1939. |
| Dikshit, B. B. | The presence in the brain of a substance resembling acetyl choline | 79, 1P, 1933. |
| " | Action of acetylcholine on the brain and its occurrence therein | 80, 409, 1934. |
| " | The production of cardiac irregularities by excitation of the hypothalmic centres | 81, 382, 1934. |
| " | Action of acetylcholine on the 'sleep centre' | 83, 42P, 1934. |
| Dill, D. B. | *Bock, A. V., —— and Talbott, J. H.* Studies in muscular activity. I. Determination of the rate of circulation of blood in man at work | 66, 121, 1928. |
| " | *and Fölling, A.* Studies in muscular activity. II. A nomographic description of expired air | 66, 133, 1928. |
| " | *Bock, A. V., Vancaulaert, C., ——, Fölling, A. and Hurzthal, L. M.* Studies in muscular activity. III. Dynamical changes occurring in man at work | 66, 136, 1928. |
| " | *Bock, A. V., Vancaulaert, C., ——, Fölling, A. and Hurzthal, L. M.* Studies in muscular activity. IV. The 'steady state' and the respiratory quotient during work | 66, 162, 1928. |
| " | *Bock, A. V., ——, Edwards, H. T., Henderson, L. J. and Talbott, J. H.* On the partial pressures of oxygen and carbon dioxide in arterial blood and alveolar air | 68, 277, 1929. |
| " | , *Talbott, J. H. and Edwards, H. T.* Studies in muscular activity. VI. Response of several individuals to a fixed task | 69, 267, 1930. |
| " | , *Edwards, H. T., Fölling, A., Oberg, S. A., Poppenheimer, A. M., Jr. and Talbott, J. H.* Adaptations of the organism to changes in oxygen pressure | 71, 47, 1931. |

| | | |
|---|---|---|
| Dill, D. B. | , *Edwards, H. T. and Talbott, J. H.* Studies in muscular activity. VII. Factors limiting the capacity for work | 77, 49, 1932. |
| " | *Brouha, L., Cannon, W. B. and.* The heart rate of the sympathectomized dog in rest and exercise | 87, 345, 1936. |
| " | *Brouha, L., Cannon, W. B. and.* Blood-sugar variations in normal and in sympathectomized dogs | 95, 431, 1939. |
| " | *Brouha, L., —— and Nowak, S. J. G.* The role of the vagus in the cardio-accelerator action of muscular exercise and emotion in sympathectomized dogs | 95, 454, 1939. |
| Dingwall, M., Jr. | *Boyd, E. M. and.* The effect of pituitary (posterior lobe) extract on the body water of fish and reptiles | 95, 501, 1939. |
| Dirken, M. N. J. | Adsorption of haemoglobin by muscle tissue | 67, 282, 1929. |
| " | *and Mook, H. W.* The oxygen combining power of muscle haemoglobin | 69, 210, 1930. |
| " | *and Mook, H. W.* The carriage of carbon dioxide by blood | 70, 373, 1930. |
| " | *and Mook, H. W.* The rate of gas exchange between blood cells and serum | 73, 349, 1931. |
| " | *Dijkstra, B. and.* The effect of forced breathing on the motor chronaxie | 96, 109, 1939. |
| Dixon, W. E. | *and Hoyle, J. C.* Studies in the pulmonary circulation. I. The vaso-motor supply | 65, 299, 1928. |
| " | *and Hoyle, J. C.* Studies in the pulmonary circulation. II. The action of adrenaline and nicotine | 67, 77, 1929. |
| " | *and Hoyle, J. C.* Studies in the pulmonary circulation. III. The action of histamine | 70, 1, 1930. |
| Dock, W. | *and Lewis, J. K.* The effect of thyroid feeding on the oxygen consumption of the heart and of other tissues | 74, 401, 1932. |
| Dodds, E. C. | *Allan, H., Dickens, F. and.* Observations on the standardization of the water-soluble, oestrus-producing hormone | 68, 348, 1930. |
| " | *Blyth, J. S. S., —— and Gallimore, E. J.* Observations on the assay of the comb-growth promoting hormone | 73, 136, 1931. |
| " | , *Noble, R. L. and Williams, P. C.* The pituitary gland and the control of urinary secretion | 91, 202, 1937. |
| " | , *Liu, S. H. and Noble, R. L.* Water balance and blood changes following posterior pituitary extract administration | 94, 124, 1938. |
| Domenech-Alsina, F. | Studies on histamine hypotension | 78, 54, 1933. |
| Douglas, C. G. | *and Haward, R. E.* The changes in the $CO_2$ pressure and hydrogen ion concentration of the arterial blood of man which are associated with hyperpnoea due to $CO_2$ | 74, 471, 1932. |
| " | , *Greene, C. R. and Keryin, F. G.* The influence of ammonium chloride on adaptation to low barometric pressures | 78, 404, 1933. |

| | | |
|---|---|---|
| Doupe, J. | *Carmichael, E. A., —— and Williams, D. J.* The cerebro-spinal fluid pressure of man in the erect posture | 91, 186, 1937. |
| " | , *Krynauw, R. A. and Snodgrass, S. R.* Some factors influencing venous pressure in man | 92, 383, 1938. |
| " | , *Newman, H. W. and Wilkins, R. W.* A method for the continuous recording of systolic arterial pressure in man | 95, 239, 1939. |
| " | , *Newman, H. W. and Wilkins, R. W.* The effect of peripheral vasomotor activity on systolic arterial pressure in the extremities of man | 95, 244, 1939. |
| " | *Carmichael, E. A., ——, Harper, A. A. and McSwiney, B. A.* Vasomotor reflexes in man following duodenal distension | 95, 276, 1939. |
| Dow, D. J. | *and Steven, D. M.* An investigation of simple methods for diagnosing vitamin A deficiency by measurements of dark adaptation | 100, 256, 1941. |
| Dow, R. S. | The electrical activity of the cerebellum and its functional significance | 94, 67, 1938. |
| Downing, A. C. | *Amberson, W. R. and.* The electric response of nerve to two stimuli | 68, 1, 1929. |
| " | *Amberson, W. R. and.* On the form of the action potential wave in nerve | 68, 19, 1929. |
| " | A moving-coil oscillograph and short-period galvanometers | 87, 3P, 1936. |
| " | , *Hill, A. V. and Schmitt, O. H.* Recording pointer-galvanometer, with photoelectric coupling and thermionic amplification, for muscle heat measurement | 95, 62P, 1939. |
| Downman, C. B. B. | Afferent fibres of the hypoglossal nerve | 94, 1P, 1938. |
| " | , *Goggio, A. F., McSwiney, B. A. and Young, M. H. C.* Reflex vaso-motor responses from the paws of the cat | 96, 14P, 1939. |
| Drinker, C. K. | The permeability and diameter of the capillaries in the web of the brown frog (*R. temporaria*) when perfused with solutions containing pituitary extract and horse serum | 63, 249, 1927. |
| " | *Churchill, E. D., Nakazawa, F. and.* The circulation of body fluids in the frog | 63, 304, 1927. |
| Drummond, J. C. | , *Gilding, H. P. and MacWalter, R. J.* The fate of carotene introduced into the circulation | 82, 75, 1934. |
| " | *and Macwalter, R. J.* The fate of carotene injected into the circulation of the rat | 83, 236, 1934. |
| Drummond-Robinson, G. | *and Asdell, S. A.* The relation between the corpus luteum and the mammary gland | 61, 608, 1926. |
| Drury, A. N. | *Florey, H., Marvin, H. M. and.* Concerning the 'central' control of the peripheral circulation | 65, 204, 1928. |
| " | *Florey, H. and.* Mucus secretion of the colon | 65, xxii, 1928. |
| " | *and Szent-Györgyi, A.* The influence upon the heart of a substance present in heart muscle and other tissues | 67, xiv, 1929. |

| | | |
|---|---|---|
| Drury, A. N. | *Szent-Györgyi, A. and.* The influence upon the heart of substances related to nucleic muscle acid | 67, xxxv, 1929. |
| " | *, Florey, H. and Florey, M. E.* The vascular reactions of the colonic mucosa of the dog to fright | 68, 173, 1929. |
| " | *Carter, C. W. and.* Heart block in rice-fed pigeons | 68, i, 1929. |
| " | *and Szent-Györgyi, A.* The physiological activity of adenine compounds with especial reference to their action upon the mammalian heart | 68, 213, 1929. |
| " | *and Wedd, A. M.* The influence of adenosine and related compounds upon the coronary arteries in the perfused rabbit's heart | 70, xxviii, 1930. |
| " | *Bennet, D. W. and.* Further observations relating to the physiological activity of adenine compounds | 72, 288, 1931. |
| " | Nucleic acid derivatives and the heart beat | 74, 147, 1932. |
| " | *Dale, A. S. and.* The refractory period of the perfused rabbit's ventricle | 74, 13*P*, 1932. |
| " | The depressor constituents of muscle extracts | 76, 15*P*, 1932. |
| " | *Dale, A. S. and.* The refractory period of mammalian cardiac muscle, with especial reference to Purkinje tissue | 76, 201, 1932. |
| " | *and Wedd, A. M.* The influence of nucleic acid derivatives upon the coronary blood flow in the dog | 79, 5*P*, 1933. |
| " | *and Mackenzie, D. W.* The influence of vagal stimulation upon conduction through the branches of the A.–V. bundle in the dog | 80, 329, 1934. |
| Deyerke, H. | (Preliminary communication.) The effect of prolan upon fertility in the silver fox | 96, 35*P*, 1939. |
| " | *and Robertson, A.* The effect of pregnancy on tissue lipides in the ewe | 99, 443, 1941. |
| D'Silva, J. L. | Calcium tolerance in cats | 80, 6*P*, 1933. |
| " | The influence of adrenaline on the blood potassium | 80, 7*P*, 1933. |
| " | The action of adrenaline on serum potassium | 82, 393, 1934. |
| " | *Gorrill, F. S., —— and McDowall, R. J. S.* The adrenaline-like substance of *Cytisus scoparius* | 83, 37*P*, 1934. |
| " | The origin of the high blood potassium in adrenalaemia | 86, 9*P*, 1935. |
| " | The action of adrenaline on serum potassium | 86, 219, 1936. |
| " | Action of adrenaline on the perfused liver | 87, 181, 1936. |
| " | Action of adrenaline on the serum potassium | 90, 303, 1937. |
| Dubuisson, M. | Impedance changes in muscle during contraction, and their possible relation to chemical processes | 89, 132, 1937. |
| " | A method of recording *p*H changes of a muscle during activity | 90, 47*P*, 1937. |
| " | Studies on the chemical processes which occur in muscle before, during and after contraction | 94, 461, 1939. |

| | | |
|---|---|---|
| DUCKWORTH, J. | *and Godden, W.* The influence of diets low in magnesium upon the chemical composition of the incisor tooth of the rat | 99, 1, 1940. |
| DUDLEY, H. W. | *Best, C. H., Dale, H. H., —— and Thorpe, W. V.* The nature of the vaso-dilator constituents of certain tissue extracts | 62, 397, 1927. |
| " | *Dale, H. H. and.* The presence of histamine and acetylcholine in the spleen of the ox and the horse | 68, 97, 1929. |
| " | The alleged occurrence of acetylcholine in ox blood | 79, 249, 1933. |
| DUFFIELD, F. A. | A labour-saving device for use in gas analysis | 61, xxix, 1926. |
| " | *and Harris, I.* Increase of pressure in veins to level of arterial pressure caused by constricting the limb in which the venous pressure is recorded | 81, 283, 1934. |
| DUKE-ELDER, P. M. | *Colle, J., —— and Duke-Elder, W. S.* Studies on the intra-ocular pressure. Part I. The action of drugs on the vascular and muscular factors controlling the intra-ocular pressure | 71, 1, 1931. |
| " | *and Duke-Elder, W. S.* Studies on the intra-ocular pressure. Part II. The physico-chemical factors controlling the intra-ocular pressure | 71, 268, 1931. |
| DUKE-ELDER, W. S. | The venous pressure of the eye and its relation to the intra-ocular pressure | 61, 409, 1926. |
| " | The arterial pressure in the eye | 62, 1, 1926. |
| " | The osmotic pressure of the aqueous humour and its physiological significance | 62, 315, 1927. |
| " | The pressure equilibrium of the eye | 64, 78, 1927. |
| " | The physico-chemical properties of the vitreous body | 68, 155, 1929. |
| " | *Colle, J., Duke-Elder, P. M. and.* Studies on the intra-ocular pressure. Part I. The action of drugs on the vascular and muscular factors controlling the intra-ocular pressure | 71, 1, 1931. |
| " | *Duke-Elder, P. M. and.* Studies on the intra-ocular pressure. Part II. The physico-chemical factors controlling the intra-ocular pressure | 71, 268, 1931. |
| " | *Benham, G. H., Dawson, H. and.* The total osmotic concentrations in serum and aqueous humour | 89, 61, 1937. |
| " | *Benham, G. H., —— and Hodgson, T. H.* The osmotic pressure of the aqueous humour in the normal and glaucomatous eye | 92, 355, 1938. |
| DULIÈRE, W. L. | *and Horton, H. V.* The reversible loss of excitability in isolated amphibian voluntary muscle | 67, 152, 1929. |
| " | On the nature of combined $CO_2$ in human serum | 90, 48P, 1937. |
| " | *and Minne, R. L.* Quantitative study on the amphoteric properties of proteins of human serum | 90, 49P, 1937. |
| DUN, FWU-TARNG | *and Finley, Cecile Bolton.* The rate of adaptation of cutaneous nerve endings in the frog | 94, 170, 1938. |

| | | |
|---|---|---|
| Dun, Fwu-Tarng | The dorsal root potential in the frog | 95, 41P, 1939. |
| ,, | The latency and conduction of potentials in the spinal cord of the frog | 100, 283, 1941. |
| Dunlop, H. A. | Adrenaline vasodilatation | 67, 349, 1929. |
| ,, | The facilitation of the adrenaline response to histamine by carbon dioxide | 81, 2P, 1934. |
| ,, | The effect of ether on the action of adrenaline | 81, 27P, 1934. |
| ,, | *and Waterston, R. E.* Reflex cholinergic nerve impulses | 83, 11P, 1934. |
| Dunn, J. S. | *, Kay, W. W. and Sheehan, H. L.* The elimination of urea by the mammalian kidney | 73, 371, 1931. |
| Dusser de Barenne, J. G. | *and Brevés, J. F. G.* The interpretation of the electromyogram of striated muscle during contractions set up by central nervous excitation | 61, 81, 1926. |
| Dyer, F. J. | *Coward, Katharine, H., Morgan, Barbara G. E. and.* The influence of vitamin A deficiency on the oestrous cycle of the rat. II | 69, 349, 1930. |
| ,, | Estimation of parathyroid hormone | 75, 13P, 1932. |
| ,, | The estimation of parathyroid extract and the preparation of a standard | 86, 3P, 1935. |
| ,, | Standardization of prolactin | 88, 6P, 1936. |
| Earlam, W. T. | *and Morton, R. A.* Surface tension and absorption spectrum of female urine over a menstrual cycle | 95, 404, 1939. |
| Eaves, Elizabeth C. | *and Clark, G. A.* Changes in the pituitary after section of the right vagus | 62, I, 1926. |
| ,, | Changes in the pituitary after repeated injections of insulin | 62, VII, 1926. |
| Eccles, J. C. | *Creed, R. S. and.* The incidence of central inhibition on restricted fields of motor-units | 66, 109, 1928. |
| ,, | *and Granit, R.* Crossed extensor reflexes and their interaction | 67, 97, 1929. |
| ,, | *and Sherrington, C. S.* Reflex summation in the ipsilateral spinal flexion reflex | 69, 1, 1930. |
| ,, | *and Sherrington, C. S.* Improved bearing for the torsion myograph | 69, I, 1929. |
| ,, | *Cooper, Sybil and.* Isometric muscle twitch | 69, III, 1929. |
| ,, | *Cooper, Sybil and.* The isometric responses of mammalian muscles | 69, 377, 1930. |
| ,, | *and Sherrington, C. S.* Flexor reflex responses to successive afferent volleys | 70, xxv, 1930. |
| ,, | *and Hoff, H. E.* Rhythmic responses of motoneurones | 71, xxi, 1931. |
| ,, | *and Hoff, H. E.* Stimulation of the pacemaker of the mammalian heart | 72, 31P, 1931. |
| ,, | *Brown, G. L., —— and Hoff, H. E.* The action of the vagus on the rhythm of the mammalian heart | 76, 9P, 1932. |
| ,, | *, Granit, R. and Young, J. Z.* Impulses in the giant nerve fibres of earthworms | 77, 23P, 1932. |
| ,, | Action potentials from the superior cervical ganglion | 80, 23P, 1934. |
| ,, | The effects of eserine and atropine on the vagal slowing of the heart | 80, 25P, 1934. |

| | | |
|---|---|---|
| Eccles, J. C. | Synaptic transmission through a sympathetic ganglion | 81, 8*P*, 1934. |
| ,, | Inhibition in the superior cervical ganglion | 82, 25*P*, 1934. |
| ,, | *Brown, G. L. and.* The action of a single vagal volley on the rhythm of the heart beat | 82, 211, 1934. |
| ,, | *Brown, G. L. and.* Further experiments on vagal inhibition of the heart beat | 82, 242, 1934. |
| ,, | After-discharge from the superior cervical ganglion | 84, 50*P*, 1935. |
| ,, | The action potential of the superior cervical ganglion | 85, 179, 1935. |
| ,, | Facilitation and inhibition in the superior cervical ganglion | 85, 207, 1935. |
| ,, | Slow potential waves in the superior cervical ganglion | 85, 464, 1935. |
| ,, | Actions of antidromic impulses on ganglion cells | 85, 32*P*, 1935. |
| ,, | *and Magladery, J. W.* The action potential of smooth muscle | 86, 57*P*, 1936. |
| ,, | The action of preganglionic impulses on ganglion cells | 87, 81*P*, 1936. |
| ,, | *and Magladery, J. W.* Pharmacological investigations on smooth muscle | 87, 87*P*, 1936. |
| ,, | The actions of antidromic impulses on ganglion cells | 88, 1, 1936. |
| ,, | The interpretation of potentials led from the superior cervical ganglion | 89, 41*P*, 1937. |
| ,, | *and Pritchard, J. J.* The action potential of motoneurones | 89, 43*P*, 1937. |
| ,, | *and Magladery, J. W.* Responses of denervated smooth muscle | 89, 45*P*, 1937. |
| ,, | *and Magladery, J. W.* The excitation and response of smooth muscle | 90, 31, 1937. |
| ,, | *and Magladery, J. W.* Rhythmic responses of smooth muscle | 90, 68, 1937. |
| ,, | Premature beats and the heart rhythm | 90, 11*P*, 1937. |
| ,, | *Brown, G. L. and.* Vagal inhibition of the cardiac pacemaker | 90, 14*P*, 1937. |
| ,, | The discharge of impulses from ganglion cells | 91, 1, 1937. |
| ,, | Anti-cholinesterases and the rate of decay of the synaptic transmitter in the superior cervical ganglion | 94, 6*P*, 1938. |
| ,, | *and O'Connor, W. J.* Responses evoked by a nerve volley in mammalian striated muscle | 94, 7*P*, 1938. |
| ,, | *and O'Connor, W. J.* Action potentials evoked by indirect stimulation of curarized muscle | 94, 9*P*, 1938. |
| ,, | *and O'Connor, W. J.* Excitatory actions at the neuro-muscular junction | 95, 32*P*, 1939. |
| ,, | *and O'Connor, W. J.* 'Inhibitory' actions at the neuro-muscular junction | 95, 34*P*, 1939. |
| ,, | *and O'Connor, W. J.* The action of eserine on striated muscle | 95, 36*P*, 1939. |
| ,, | *and O'Connor, W. J.* Responses which nerve impulses evoke in mammalian striated muscles | 97, 44, 1939. |
| ,, | *and O'Connor, W. J.* Abortive impulses at the neuro-muscular junction | 100, 318, 1941. |

| | | |
|---|---|---|
| Echlin, F. | *and Propper, N.* 'Sensitization' by injury of the cutaneous nerve endings in the frog | 88, 388, 1937. |
| " | *and Propper, N.* Sensory fibres in the spinal accessory nerve | 92, 160, 1938. |
| " | *and Fessard, A.* Synchronized impulse discharges from receptors in the deep tissues in response to a vibrating stimulus | 93, 312, 1938. |
| Eckhard, Rachel | *Adrian, E. D. and.* Impulses in the optic nerve | 62, xxiii, 1927. |
| Edholm, O. | *and McDowall, R. J. S.* The effect of the aortic and cardiac depressors on the circulatory response to posture | 86, 8P, 1935. |
| " | Effect of gravity on the blood pressure of the cat | 98, 79, 1940. |
| " | The relation of heart rate to intracranial pressure | 98, 442, 1940. |
| Edkins, Nora | *and Murray, Margaret M.* The effect of $CO_2$ on the absorption of alcohol and the influence of alcohol on the diffusion of $CO_2$ in the small intestine | 62, 13, 1926. |
| " | The influence of alcohol on absorption of glucose. Part I | 65, 381, 1928. |
| " | *and Murray, Margaret M.* The effect of alcohol on the absorption of glucose from the alimentary tract. Part II | 66, 102, 1928. |
| " | *and Murray, Margaret M.* Sugar tolerance and alcohol | 71, 403, 1931. |
| Edridge-Green, F. | The double function of the ocular muscles | 95, 62P, 1939. |
| Edwards, H. T. | *Bock, A. V., Dill, D. B., ——, Henderson, L. J. and Talbott, J. H.* On the partial pressures of oxygen and carbon dioxide in arterial blood and alveolar air | 68, 277, 1929. |
| " | *Dill, D. B., Talbott, J. H. and.* Studies in muscular activity. VI. Response of several individuals to a fixed task | 69, 267, 1930. |
| " | *Dill, D. B., ——, Fölling, A., Oberg, S. A., Pappenheimer, Jr., A. M. and Talbott, J. H.* Adaptations of the organism to changes in oxygen pressure | 71, 47, 1931. |
| " | *Dill, D. B., —— and Talbott, J. H.* Studies in muscular activity. VII. Factors limiting the capacity for work | 77, 49, 1932. |
| Eggleton, M. Grace | *Eggleton, P. and.* The physiological significance of 'phosphagen' | 63, 155, 1927. |
| " | *Eggleton, P. and.* Further observations on phosphagen | 65, 15, 1928. |
| " | *and Eggleton, P.* A method of estimating phosphagen and some other phosphorus compounds in muscle tissue | 68, 193, 1929. |
| " | *and Evans, C. Lovatt.* Lactic acid formation and removal with change of blood reaction | 70, 261, 1930. |
| " | *and Evans, C. Lovatt.* The lactic acid content of the blood after muscular contraction under experimental conditions | 70, 269, 1930. |

| | | |
|---|---|---|
| EGGLETON, M. GRACE | *Clark, A. J., —— and Eggleton, P.* Phosphagen and cardiac function | 72, 28P, 1931. |
| „ | *Clark, A. J., —— and Eggleton, P.* Phosphagen and cardiac function (2) | 74, 7P, 1931. |
| „ | *Clark, A. J., —— and Eggleton, P.* Phosphagen in the perfused heart of the frog | 75, 332, 1932. |
| „ | Diffusion of inorganic phosphate into and out of the skeletal muscles and bones of the frog | 79, 31, 1933. |
| „ | A physiological study of phosphagen in plain muscle | 82, 79, 1934. |
| „ | Diffusion of sugars into muscle | 84, 59P, 1935. |
| „ | , *Eggleton, P. and Hamilton, Alison M.* Distribution of chloride in frog's skeletal muscle immersed in saline solution | 90, 167, 1937. |
| „ | The behaviour of muscle following injection of water into the body | 90, 465, 1937. |
| „ | , *Pappenheimer, J. R. and Winton, F. R.* The influence of diuretics on the osmotic work done and on the efficiency of the isolated kidney of the dog | 97, 363, 1940. |
| „ | Determination of the metabolic rate of alcohol | 98, 228, 1940. |
| „ | Some factors affecting the metabolic rate of alcohol | 98, 239, 1940. |
| „ | , *Pappenheimer, J. R. and Winton, F. R.* The mechanisms of dilution diuresis in the isolated kidney and the anaesthetized dog | 98, 336, 1940. |
| „ | , *Pappenheimer, J. R. and Winton, F. R.* The relation between ureter, venous, and arterial pressures in the isolated kidney of the dog | 99, 135, 1940. |
| EGGLETON, P. | *and Eggleton, Grace Palmer.* The physiological significance of 'phosphagen' | 63, 155, 1927. |
| „ | *and Eggleton, Grace Palmer.* Further observations on phosphagen | 65, 15, 1928. |
| „ | *Eggleton, Grace Palmer and.* A method of estimating phosphagen and some other phosphorus compounds in muscle tissue | 68, 193, 1929. |
| „ | The diffusion of creatine and urea through muscle | 70, 294, 1930. |
| „ | *Clark, A. J., Eggleton, M. Grace and.* Phosphagen and cardiac function | 72, 25P, 1931. |
| „ | *Clark, A. J., Eggleton, M. Grace and.* Phosphagen and cardiac function (2) | 74, 7P, 1931. |
| „ | *Clark, A. J., Eggleton, M. Grace and.* Phosphagen in the perfused heart of the frog | 75, 332, 1932. |
| „ | *Bayliss, L. E. and.* A stimulation unit for A.C. mains | 84, 58P, 1935. |
| „ | *Eggleton, M. Grace, —— and Hamilton, Alison M.* Distribution of chloride in frog's skeletal muscle immersed in saline solution | 90, 167, 1937. |
| „ | *and Robson, J. M.* Gonadotrophin from horse pituitaries | 96, 4P, 1939. |
| ELAUT, L. | *Bouckaert, J. J., —— and Heymans, C.* Vasomotor carotid sinus reflexes in experimental hypertension produced by renal ischemia | 89, 3P, 1936. |

| | | |
|---|---|---|
| Elkes, J. J. | , *Fraser, A. C. and Stewart, H. C.* The composition of particles seen in normal human blood under dark-ground illumination | 95, 68, 1939. |
| Ellinger, P. | Note on the function of the mammalian kidney | 82, 10*P*, 1934. |
| „ | Note on the theory of urine production | 82, 12*P*, 1934. |
| „ | *and Lambrechts, A.* The effect of phloridzine on the elimination of dyestuffs in the kidney | 89, 30*P*, 1937. |
| „ | *and Lambrechts, A.* Note on the localization of the glycosuric action of phloridzine | 89, 33*P*, 1937. |
| „ | The formation of urine in the amphibian and mammalian kidney | 97, 433, 1940. |
| „ | *Chick, Harriette and.* The photo-sensitizing action of buckwheat (*Fagopyrum esculentum*) | 100, 212, 1941. |
| Elliott, F. J. | *Burns, C. M. and.* The calcium content of liver | 84, 39*P*, 1935. |
| „ | The effect of parathyroid extract on gastric secretions | 98, 27*P*, 1940. |
| Elliott, R. H. | , *Hall, F. G. and Huggett, A. St G.* The blood volume and oxygen capacity of the foetal blood in the goat | 82, 160, 1934. |
| „ | *Barcroft, J., ——, Fraser, F. R., Herkel, W., Matthews, B. H. C. and Talaat, M.* A case of deficient acclimatization to low oxygen pressure | 82, 369, 1934. |
| „ | *Barcroft, J., ——, Flexner, L. B., Hall, F. G., Herkel, W., McCarthy, E. F., McClurkin, T. and Talaat, M.* Conditions of foetal respiration in the goat | 83, 192, 1934. |
| „ | *Barcroft, J. and.* Some observations on the denervated spleen | 87, 189, 1936. |
| Ellis, Maxwell | The mechanism of the rhythmic changes in the calibre of the bronchi during respiration | 87, 298, 1936. |
| Ellis, M. P. | *and Livingston, A. E.* A method of directly recording changes in the calibre of the bronchi | 84, 223, 1935. |
| Ellis, R. | *Bramwell, Crighton and.* The crescendo murmur of mitral stenosis | 67, xviii, 1929. |
| Ellis, W. G. | Modification of the Winkler method of estimating dissolved oxygen | 82, 5*P*, 1934. |
| Elphick, G. K. | *and Gunn, J. A.* The action of some amines related to adrenaline, methoxyphenylmethoxyethylamines | 81, 422, 1934. |
| Elvidge, A. R. | *Tait, J. and.* Effect upon platelets and on blood coagulation of injecting foreign particles into the blood stream | 62, 129, 1926. |
| Emmens, C. W. | Response of fowl to massive dosage of oestrone and testosterone | 92, 27*P*, 1938. |
| „ | Maximum growth rate of capon comb | 93, 413, 1938. |
| „ | Some effects of compounds of the androsterone-testosterone series on ovariectomized mice | 93, 416, 1938. |
| „ | The oral activity of certain androgens, oestrogens and augmenting substances | 94, 22*P*, 1938. |
| „ | The effect of prolonged dosage with oestrogens on the adult brown Leghorn cock | 95, 379, 1939. |

| | | |
|---|---|---|
| Emmons, W. F. | The interrelation of number, volume, diameter and area of mammalian erythrocytes | 64, 215, 1927. |
| Endres, G. | Recording of respiration of small animals | 70, 218, 1930. |
| Engel, D. | The influence of the sympathetic nervous system on capillary permeability | 99, 161, 1941. |
| Epstein, D. | The responses of the excised batrachian alimentary canal to certain autonomic drugs | 71, iv, 1930. |
| ,, | The responses of the batrachian alimentary canal to autonomic drugs. *Rana* and *Bufo* arecoline | 75, 99, 1932. |
| ,, | , *Gunn, J. A. and Virden, C. J.* The action of some amines related to adrenaline. I. Methoxyphenylethylamines | 76, 224, 1932. |
| ,, | The action of histamine on the respiratory tract | 76, 347, 1932. |
| Ernould, H. | *Heet, J. and.* On the nervous control of insulin secretion | 70, i, 1930. |
| Ettinger, G. H. | An investigation of the pulmonary circulation of the guinea-pig. (Preliminary report) | 67, xlii, 1929. |
| ,, | *and Hall, G. E.* Acetylcholine in ox and dog blood | 82, 38, 1934. |
| Euler, U. S. v. | *and Liljestrand, G.* Effect of adrenaline, sympathol, tyramine, ephetonine and histamine on gas exchange and circulation in man | 65, xxii, 1928. |
| ,, | *and Gaddum, J. H.* An unidentified depressor substance in certain tissue extracts | 72, 74, 1931. |
| ,, | *and Gaddum, J. H.* Pseudomotor contractures after degeneration of the facial nerve | 73, 54, 1931. |
| ,, | An oxygenator for perfusion experiments | 74, 2*P*, 1931. |
| ,, | A vaso-constrictor action of acetylcholine on the rabbit's pulmonary circulation | 74, 271, 1932. |
| ,, | On the presence of 'novadrenine' in suprarenal extracts | 78, 462, 1933. |
| ,, | An adrenaline-like action in extracts from the prostatic and related glands | 81, 102, 1934. |
| ,, | Some factors influencing the heat production of muscle after stretching | 84, 1, 1935. |
| ,, | (Introduced by H. H. Dale.) A depressor substance in the vesicular gland | 84, 21*P*, 1935. |
| ,, | On the specific vaso-dilating and plain muscle stimulating substances from accessory genital glands in man and certain animals (prostaglandin and vesiglandin) | 88, 213, 1936. |
| ,, | The central depressor action of adrenaline and its inhibition by ergotoxine | 92, 111, 1938. |
| ,, | *Brown, G. L. and.* The after effects of a tetanus on mammalian muscle | 93, 39, 1938. |
| ,, | Action of adrenaline, acetylcholine and other substances on nerve-free vessels (human placenta) | 93, 129, 1938. |
| ,, | *Bjurstedt, H. and.* Effect of a tetanus and adrenaline on single muscle twitches after adrenalectomy | 95, 19*P*, 1939. |
| ,, | , *Liljestrand, G. and Zotterman, Y.* The excitation mechanism of the chemoreceptors of the carotid body | 96, 42*P*, 1939. |

| | | |
|---|---|---|
| Evans, C. Lovatt | *Eggleton, M. Grace and.* Lactic acid formation and removal with change of blood reaction | 70, 261, 1930. |
| " | *Eggleton, M. Grace and.* The lactic acid content of the blood after muscular contraction under experimental conditions | 70, 269, 1930. |
| " | , *Tsai, C. and Young, F. G.* The action of adrenaline on glycogen distribution in cats | 71, xxiv, 1931. |
| " | , *Tsai, C. and Young, F. G.* Conditions affecting the liver glycogen in experimental animals | 71, xxv, 1931. |
| " | , *Tsai, C. and Young, F. G.* The behaviour of liver glycogen in experimental animals. I. Methods: the effect of ether and amytal | 73, 67, 1931. |
| " | , *Tsai, C. and Young, F. G.* The behaviour of liver glycogen in experimental animals. II. Glycogen recovery after decapitation and decerebration | 73, 81, 1931. |
| " | , *Tsai, C. and Young, F. G.* The action of adrenaline on glycogen distribution in the cat | 73, 103, 1931. |
| " | *Graff, A. C. de, —— and Vacek, T.* The behaviour of liver glycogen in experimental animals. III. The relationship of blood phosphorus to liver glycogen and blood glucose in the decapitate cat | 76, 387, 1932. |
| " | , *Murphy, G. E. and Young, F. G.* The behaviour of liver glycogen in experimental animals. V. Some factors affecting liver glycogen recovery in the decapitate cat | 76, 413, 1932. |
| " | *Browne, J. S. L. and.* Carbohydrate metabolism and the effect of decapitation and decerebration under nitrous oxide anaesthesia | 80, 1, 1933. |
| " | , *Graff, A. C. de, Kosaka, T., Mackenzie, K., Murphy, G. E., Vacek, T., Williams, D. H. and Young, F. G.* The utilization of blood sugar and lactate by the heart-lung preparation | 80, 21, 1933. |
| " | , *Hsu, Fong-Yen and Kosaka, T.* Glycolytic formation of blood lactate | 80, 19P, 1933. |
| " | , *Hsu, Fong-Yen and Kosaka, T.* Utilization of blood sugar and formation of lactic acid by the lungs | 82, 41, 1934. |
| " | *Bogue, J. Yule, —— and Hsu, F.-Y.* The significance of lactic acid uptake by the mammalian heart | 84, 55P, 1935. |
| " | *and Samaan, A.* Simultaneous ligature of the carotid and vertebral arteries in the dog | 87, 33P, 1936. |
| " | *Code, C. F., —— and Gregory, R. A.* Blood histamine and cardiac activity | 92, 344, 1938. |
| Evans, Courtenay | The investigation of the toxic effects of large amounts of sugar in the blood | 77, 189, 1933. |
| Evans, G. | The glycogen content of the rat heart | 82, 468, 1934. |
| Evans, J. P. | Observations on the nerves of supply to the bladder and urethra of the cat, with a study of their action potentials | 86, 396, 1936. |

| | | |
|---|---|---|
| Fano, G. | *and Garoffolini, L.* Culture *in vitro* of germinal epithelium from embryo chick | 63, vi, 1927. |
| Farber, S. | Resistance of spinal vaso-motor centres to anaemia or asphyxia | 87, 31*P*, 1936. |
| Fasciolo, J. C. | , *Houssay, B. A. and Taquini, A. C.* The blood-pressure raising secretion of the ischaemic kidney | 94, 281, 1938. |
| „ | *Braun-Menendez, E.*, ——, *Leloir, L. F. and Muñoz, J. M.* The substance causing renal hypertension | 98, 283, 1940. |
| Fee, A. R. | *Hemingway, A. and.* The relationship between the volume of the heart and its oxygen usage | 63, 299, 1927. |
| „ | *and Hemingway, A.* The oxygen usage of the kidney | 65, 100, 1928. |
| „ | *Bayliss, L. E.*, —— *and Ogden, E.* A method of oxygenating blood | 66, 443, 1928. |
| „ | A note on the effect of sodium sulphate on the oxygen usage of the kidney | 67, 14, 1929. |
| „ | , *Marrian, G. F. and Parkes, A. S.* The significance of the occurrence of oestrin in male urine | 67, 377, 1929. |
| „ | *and Parkes, A. S.* Studies on ovulation. I. The relation of the anterior pituitary body to ovulation in the rabbit | 67, 383, 1929. |
| „ | Studies on water diuresis. Part I. The effect of decerebration anaesthesia and morphia upon water diuresis | 68, 39, 1929. |
| „ | Studies on water diuresis. Part II. The excretion of urine after hypophysectomy and decerebration | 68, 305, 1929. |
| „ | *Bayliss, L. E. and.* Studies on water diuresis. Part III. A comparison of the excretion of urine by innervated and denervated kidneys perfused with the heart-lung preparation | 69, 135, 1930. |
| „ | *Bayliss, L. E. and.* A combined flow recorder and pump control | 69, v, 1929. |
| „ the late | *Deansley, Ruth*, —— *and Parkes, A. S.* Studies on ovulation. II. The effect of hypophysectomy on the formation of the corpus luteum | 70, 38, 1930. |
| „ the late | *Bayliss, L. E. and.* Studies in water diuresis. Part IV. The changes in the concentration of electrolytes and colloids in the plasma of decerebrate dogs produced by the ingestion of water | 70, 60, 1930. |
| „ the late | *and Parkes, A. S.* Studies on ovulation. III. Effect of vaginal anaesthesia on ovulation in the rabbit | 70, 385, 1930. |
| Fegler, J. | The action of curare on the respiratory centre | 100, 417, 1942. |
| Feit, H. | *Cattell, McKeen and.* Changes in the efficiency of muscular contraction in relation to activity | 82, 15*P*, 1934. |
| „ | *Cattell, McKeen and.* The effect of anaerobic activity and rest on the efficiency of contraction in isolated frog muscle | 91, 259, 1937. |

| | | |
|---|---|---|
| Feldberg, W. | The peripheral innervation of the vessels of the external ear of the rabbit | 61, 518, 1926. |
| " | Experiments on the degeneration of striated muscle fibres after sympathetic denervation | 61, xxxii, 1926. |
| " | The action of histamine on the blood vessels of the rabbit | 63, 211, 1927. |
| " | *and Gaddum, J. H.* The chemical transmitter at synapses in a sympathetic ganglion | 80, 12*P*, 1933. |
| " | *, Minz, B. and Tsudzimura, H.* The mechanism of the nervous discharge of adrenaline | 80, 15*P*, 1933. |
| " | *Dale, H. H. and.* The chemical transmitter of effects of the gastric vagus | 80, 16*P*, 1933. |
| " | *, Minz, B. and Tsudzimura, H.* The mechanism of the nervous discharge of adrenaline | 81, 286, 1934. |
| " | *and Gaddum, J. H.* The chemical transmitter at synapses in a sympathetic ganglion | 81, 305, 1934. |
| " | *Dale, H. H. and.* The chemical transmitter of vagus effects to the stomach | 81, 320, 1934. |
| " | *and Schild, H.* Distribution of choline and acetylcholine in suprarenal glands | 81, 37*P*, 1934. |
| " | *and Vartiainen, A.* Action of eserine on transmission through the superior cervical ganglion | 81, 39*P*, 1934. |
| " | *Dale, H. H. and.* Chemical transmission at motor nerve endings in voluntary muscle? | 81, 39*P*, 1934. |
| " | *Dale, H. H. and.* The chemical transmitter of nervous stimuli to the sweat glands of the cat | 81, 40*P*, 1934. |
| " | *and Vartiainen, A.* Further observations on the physiology and pharmacology of a sympathetic ganglion | 83, 103, 1934. |
| " | *and Guimarãis, J. A.* (with a note by H. H. Dale). Effects of sympathetic impulses and adrenaline on salivary secretion | 83, 43*P*, 1935. |
| " | *Brown, G. L. and.* Effect of potassium chloride on a sympathetic ganglion | 84, 12*P*, 1935. |
| " | *and Guimarãis, J. A.* Some observations on salivary secretion | 85, 15, 1935. |
| " | *Brown, G. L. and.* Differential paralysis of the superior cervical ganglion | 86, 10*P*, 1935. |
| " | *and Schriever, H.* The acetylcholine content of the cerebro-spinal fluid of dogs | 86, 277, 1936. |
| " | *Brown, G. L. and.* The action of potassium on the superior cervical ganglion of the cat | 86, 290, 1936. |
| " | *and Guimarãis, J. A.* The liberation of acetylcholine by potassium | 86, 306, 1936. |
| " | *Brown, G. L. and.* Synthesis of acetylcholine in the superior cervical ganglion | 86, 40*P*, 1936. |
| " | *Brown, G. L. and.* Inhibition in a ganglion by excess of acetylcholine | 86, 41*P*, 1936. |
| " | *Dale, H. H., —— and Vogt, Marthe.* Release of acetylcholine at voluntary motor nerve endings | 86, 353, 1936. |
| " | *Brown, G. L., Dale, H. H. and.* Chemical transmission of excitation from nerve to voluntary muscle | 87, 42*P*, 1936 |
| " | *Brown, G. L., Dale, H. H. and.* Reactions of the normal mammalian muscle to acetylcholine and to eserine | 87, 394, 1936. |

| | | |
|---|---|---|
| Feldberg, W. | *Brown, G. L. and.* The acetylcholine metabolism of a sympathetic ganglion | 88, 265, 1936. |
| " | *and Kellaway, C. H.* Liberation of histamine from the perfused lung by snake venoms | 90, 257, 1937. |
| " | *and Keogh, E. V.* Liberation of histamine from the perfused lung by staphylococcal toxin | 90, 280, 1937. |
| " | *and O'Connor, W. J.* The liberation of histamine from the perfused lung by peptone | 90, 288, 1937. |
| " | *and Kellaway, C. H.* Liberation of histamine from the perfused lung of the guinea-pig by bee venom | 91, 2P, 1937. |
| " | *and Kellaway, C. H.* Liberation of histamine and formation of lysocithin-like substances by cobra venom | 94, 187, 1938. |
| " | , *Holden, H. F. and Kellaway, C. H.* The formation of lysocithin and of a muscle-stimulating substance by snake venoms | 94, 232, 1938. |
| " | , *Fessard, A. and Nachmansohn, D.* The cholinergic nature of the nervous supply to the electrical organ of the *Torpedo* (*Torpedo marmorata*) | 97, 3P, 1940. |
| " | *and Solandt, O. M.* The stimulating effect of glucose and pyruvate on the rabbit's gut | 98, 22P, 1940. |
| " | *and Holmes, B.* The effect of muscular contractions and of curarine on acid gastric secretion in cats | 99, 3P, 1941. |
| " | The action of bee venom, cobra venom and lysolecithin on the adrenal medulla | 99, 104, 1940. |
| Feng, T. P. | The effect of length on the resting metabolism of muscle | 74, 441, 1932. |
| " | The thermo-elastic properties of muscle | 74, 455, 1932. |
| " | The role of lactic acid in nerve activity | 76, 477, 1932. |
| " | *Beresina, Mary and.* The heat production of crustacean nerve | 77, 111, 1933. |
| " | Reversible inexcitability of tactile endings in skin injury | 79, 103, 1933. |
| Fenn, W. O. | *and Latchford, W. B.* The effect of muscle length on the energy for maintenance of tension | 80, 213, 1933. |
| " | *and Marsh, B. S.* Muscular force at different speeds of shortening | 85, 277, 1935. |
| Ferguson, G. C. | *Best, C. H., —— and Hershey, J. M.* Choline and liver fat in diabetic dogs | 79, 94, 1933. |
| Ferguson, J. H. | , *McGavran, Joyce and Smith, Elizabeth R. B.* Pilocarpine and gastric anacidity in monkeys | 82, 1, 1934. |
| " | *and Smith, Elizabeth R. B.* The effects of acetyl-$\beta$-methyl choline on the gastric acidity of monkeys | 83, 455, 1935. |
| Ferguson, J. K. W. | , *Irving, L. and Plewes, F. B.* The source of expired $CO_2$ in decapitated, eviscerated cats | 68, 265, 1929. |
| " | *Irving, L., —— and Plewes, F. B.* The source of $CO_2$ expired and the site of its retention | 69, 113, 1930. |

| | | |
|---|---|---|
| Ferguson, J. K. W. | *and Roughton, F. J. W.* Direct chemical estimation of 'carbamino-bound' $CO_2$ in haemoglobin solution | 81, 21*P*, 1934. |
| ,, | *and Roughton, F. J. W.* The direct chemical estimation of carbamino compounds of $CO_2$ with haemoglobin | 83, 68, 1934. |
| ,, | *and Roughton, F. J. W.* The chemical relationships and physiological importance of carbamino compounds of $CO_2$ with haemoglobin | 83, 87, 1934. |
| ,, | Carbamino compounds of $CO_2$ with human haemoglobin and their role in the transport of $CO_2$ | 88, 40, 1936. |
| Fessard, A. | *Echlin, F. and.* Synchronized impulse discharges from receptors in the deep tissues in response to a vibrating stimulus | 93, 312, 1938. |
| ,, | *and Matthews, B. H. C.* Unitary synaptic potentials | 95, 39*P*, 1939. |
| ,, | *Feldberg, W., —— and Nachmansohn, D.* The cholinergic nature of the nervous supply to the electrical organ of the *Torpedo* (*Torpedo marmorata*) | 97, 3*P*, 1940. |
| Fildes, P. | *Knight, B. C. J. G. and.* An essential growth factor for the anaerobe, *B. sporogenes* | 78, 6*P*, 1933. |
| Finkleman, B. | Vagus inhibition in relation to ions | 65, III, 1928. |
| ,, | Preparation for the measurement of the excitability of the cardiac nerves of the frog | 65, xxx, 1928. |
| ,, | Observations on intestinal inhibition | 70, VI, 1930. |
| ,, | On the nature of inhibition in the intestine | 70, 145, 1930. |
| Finley, Cecile Bolton | *Dun, Fwu-Tarng and.* The rate of adaptation of cutaneous nerve endings in the frog | 94, 170, 1938. |
| ,, | The effect of temperature upon dorsal root potentials in the frog | 96, 225, 1939. |
| Fish, E. W. | Age changes in the permeability of dog's enamel | 72, 321, 1931. |
| ,, | The effect of vitamin D on the calcium content of the dentine | 84, 272, 1935. |
| Fisher, R. B. | Monoiodoacetic acid as a fixative for lactic acid in normal and polyneuritic pigeons | 71, xxx, 1931. |
| ,, | *and Zuckerman, S.* The distribution of water in the sexual skin of monkeys | 89, 15*P*, 1936. |
| ,, | *Davenport, H. W. and.* Carbonic anhydrase in the gastro-intestinal mucosa | 94, 16*P*, 1938. |
| ,, | *and Subrahmanyan, V.* The diffusion of chloride and glucose into frog muscle | 97, 233, 1939. |
| Fitzgerald, O. | *and O'Connor, J. M.* The relation between respiratory quotient and alveolar $CO_2$ tension | 91, 59, 1937. |
| ,, | Discharges from the sensory organs of the cat's vibrissae and the modification in their activity by ions | 98, 163, 1940. |
| Fletcher, C. M. | Action potentials recorded from an unstriated muscle of simple structure | 90, 233, 1937. |
| ,, | Excitation of the action potential of a molluscan unstriated muscle | 90, 415, 1937. |

| | | |
|---|---|---|
| Fletcher, C. M. | The relation between the mechanical and electrical activity of a molluscan unstriated muscle | 91, 172, 1937. |
| Fletcher, Jean P. | *and Waters, E. T.* The utilization of various metabolites (blood fat and lactate, cardiac and lung glycogen) in the aglycaemic heart-lung preparation | 94, 337, 1938. |
| Flexner, L. B. | *Barcroft, J., —— and McClurkin, T.* The output of the foetal heart in the goat | 82, 498, 1934. |
| " | *Barcroft, J., Elliott, R. H. E., ——, Hall, F. G., Herkel, W., McCarthy, E. F., McClurkin, T. and Talaat, M.* Conditions of foetal respiration in the goat | 83, 192, 1934. |
| " | *Barcroft, J., ——, Herkel, W., McCarthy, E. F. and McClurkin, T.* The utilization of oxygen by the uterus in the rabbit | 83, 215, 1934. |
| Florey, H. | Capillary permeability | 61, 1, 1926. |
| " | Observations on the contractility of lacteals. Part I | 62, 267, 1927. |
| " | Observations on the contractility of lacteals. Part II | 63, 1, 1927. |
| " | *Hewitt, L. F. and.* Effect of drugs on protein content of cerebro-spinal fluids of rabbits | 64, xxvii, 1927. |
| " | *and Marvin, H. M.* The blood-pressure reflexes of the rabbit under urethane anaesthesia | 64, 318, 1928. |
| " | *, Marvin, H. M. and Drury, A. N.* Concerning the 'central' control of the peripheral circulation | 65, 204, 1928. |
| " | *and Drury, A. N.* Mucus secretion of the colon | 65, xxii, 1928. |
| " | *Barcroft, J. and.* Some factors involved in the concentration of blood by the spleen | 66, 231, 1928. |
| " | *, Szent-Györgyi, A. and Florey, M. E.* Methods for testing for the presence of adrenal cortex hormone | 67, 343, 1929. |
| " | *Barcroft, J. and.* The effects of exercise on the vascular conditions in the spleen and the colon | 68, 181, 1929. |
| " | *and Walton, A.* Uterine fistula used to determine the mechanism of ascent of the spermatozoon in the female genital tract | 74, 5P, 1931. |
| " | *Wright, R. D., Jennings, M. A., —— and Lium, R.* Observations on intestinal secretion | 96, 13P, 1939. |
| Florey, M. E. | *Florey, H., Szent-Györgyi, A. and.* Methods for testing for the presence of adrenal cortex hormone | 67, 343, 1929. |
| Floyd, W. F. | Electrical phenomena recorded from the skin | 85, 27P, 1935. |
| " | Apparatus for the continuous recording of potentials and E.M.F.'s from the skin | 85, 28P, 1935. |
| " | *and Keele, C. A.* Further observations on changes of potential and E.M.F. recorded from the human skin | 86, 23P, 1936. |
| " | *and Keele, C. A.* Electrolytic phenomena in electrodes used for physiological purposes | 86, 25P, 1936. |
| " | A modification of the apparatus for recording electrical phenomena from the skin | 87, 24P, 1936. |

| | | |
|---|---|---|
| Floyd, W. F. | *and Keele, C. A.* Action of adrenaline on the electromyogram in decerebrate rigidity | 87, 93*P*, 1936. |
| Folley, S. J. | *Davis, E. and.* Effect of activated charcoal on frog heart perfusate | 73, 9*P*, 1931. |
| ,, | *and Peskett, G. L.* Automatic pressure control | 78, 13*P*, 1933. |
| ,, | *and Peskett, G. L.* Experiments on variations in blood composition | 82, 486, 1934. |
| ,, | *Bottomley, A. C. and.* The effect of androgenic substances on the testes and accessory reproductive organs of the immature male guinea-pig | 92, 15*P*, 1938. |
| ,, | *Bottomley, A. C. and.* The effect of androgenic substances on the rate of teat growth in the male guinea-pig | 92, 33*P*, 1938. |
| ,, | Experiments on the relation between the thyroid gland and lactation in the rat | 93, 401, 1938. |
| ,, | *Bottomley, A. C. and.* The effect of high doses of androgenic substances on the weights of the testes' accessory reproductive organs and endocrine glands of young male guinea-pigs | 94, 26, 1938. |
| ,, | , *Watson, Helen M. S. and Bottomley, A. C.* Induction of lactation in goats with diethylstilboestrol dipropionate | 98, 15*P*, 1940. |
| ,, | *and Bottomley, A. C.* Observations on teat growth in immature female goats | 99, 5*P*, 1941. |
| ,, | , *Watson, Helen M. Scott (Mrs C. C. Thiel) and Bottomley, A. C.* Initiation of lactation in nulliparous heifers by diethylstilboestrol | 100, 7*P*, 1941. |
| Fölling, A. | *Dill, D. B. and.* Studies in muscular activity. II. A nomographic description of expired air | 66, 133, 1928. |
| ,, | *Bock, A. V., Vancaulaert, C., Dill, D. B., —— and Hurxthal, L. M.* Studies in muscular activity. III. Dynamical changes occurring in man at work | 66, 136, 1928. |
| ,, | *Bock, A. V., Vancaulaert, C., Dill, D. B., —— and Hurxthal, L. M.* Studies in muscular activity. IV. The 'steady state' and the respiratory quotient during work | 66, 162, 1928. |
| ,, | *Dill, D. B., Edwards, H. T., ——, Oberg, S. A., Pappenheimer, Jr., A. M. and Talbott, J. H.* Adaptations of the organism to changes in oxygen pressure | 71, 47, 1931. |
| Follows, A. B. | A study of the mistakes in colour matching made by persons with defective colour vision | 82, 172, 1934. |
| Forbes, A. | *and Grass, A. M.* A simple direct-coupled amplifier for action potentials | 91, 31, 1937. |
| Forbes, W. H. | *and Roughton, F. J. W.* The equilibrium between oxygen and haemoglobin. I. The oxygen dissociation curve of dilute blood solutions | 71, 229, 1931. |
| ,, | The equilibrium between oxygen and haemoglobin. II. The oxygen dissociation curves of dilute solutions of horse haemoglobin | 71, 261, 1931. |

| | | |
|---|---|---|
| Ford, F. J. | , *Graham, S. G. and Morris, N.* Difference between the retentions of calcium and phosphorus as a factor in the production of infantile tetany | 75, 33P, 1932. |
| Formijne, P. | *Barcroft, H. and.* The relation of the central nervous system to the increase in systemic flow produced by occlusion of the thoracic aorta | 82, 377, 1934. |
| Forsham, P. H. | *Barcroft, J., Barron, D. H., Cowie, A. T., —— and MacDonald, A.* The effect of asphyxia on inhibition of respiratory movement in the sheep's foetus | 96, 12P, 1939. |
| „ | *Barcroft, J., Barron, D. H., Cowie, A. T. and.* The oxygen supply of the foetal brain of the sheep and the effect of asphyxia on foetal respiratory movement | 97, 338, 1940. |
| Forster, M. G. | (Assisted by Chalmers, A. K.) The effect of atropine on adrenaline hyperglycaemia in rabbits decerebrated anterior to the pons | 79, 239, 1933. |
| „ | The effect of splanchnotomy and of phlorrhizin on decerebration hyperglycaemia | 80, 323, 1933. |
| „ | *Cleghorn, R. A., Cleghorn, S. M. M., —— and McVicar, G. A.* Some factors influencing the survival of rats after adrenalectomy and the suitability of the young rat for testing the potency of adrenal cortical extracts | 86, 229, 1936. |
| Fowler, J. L. A. | *Armstrong, C. W. J., Cleghorn, R. A., —— and McVicar, G. A.* Some effects of stimulation of sympathetic nerves and injection of pressor drugs in adrenalectomized cats | 96, 146, 1939. |
| Francis, E. T. B. | *Davies, F. and.* The glycogen content of the frog's heart | 100, 329, 1941. |
| Franklin, K. J. | *and Gilding, H. P.* A pleural cannula | 75, 1P, 1932. |
| „ | The actions of adrenaline and of acetylcholine on the isolated pulmonary vessels and azygos vein of the dog | 75, 471, 1932. |
| „ | The differential pharmacology of the inferior vena cava of some mammals | 77, 174, 1933. |
| „ | The influence of certain factors upon the volume of the intrathoracic venae cavae | 79, 470, 1933. |
| „ | *and Janker, R.* Effects of respiration upon the venae cavae of certain mammals, as studied by means of X-ray cinematography | 81, 434, 1934. |
| „ | Undulatory changes, of uterine origin, in the arterial blood-pressure | 84, 342, 1935. |
| „ | *and Janker, R.* Respiration and the venae cavae — further X-ray cinematographic studies | 86, 264, 1936. |
| „ | *and McLachlin, A. D.* The constrictor response of the inferior vena cava to stimulation of the splanchnic nerve | 86, 381, 1936. |
| „ | *and McLachlin, A. D.* Stream-lines in the abdominal vena cava | 86, 386, 1936. |

| | | |
|---|---|---|
| Franklin, K. J. | *and McLachlin, A. D.* Further studies upon the reactions of the abdominal vena cava | 87, 87, 1936. |
| " | *and McLachlin, A. D.* Dilatation of veins in response to tapping in man and in certain other mammals | 88, 257, 1936. |
| " | *and McLachlin, A. D.* The reactions of the abdominal vena cava | 88, 261, 1936. |
| " | *and McLachlin, A. D.* Stream-lines in the abdominal vena cava in the late stages of pregnancy | 88, 263, 1936. |
| " | *and Janker, R.* The effects of respiration upon the circulation through the liver, as studied by means of X-ray cinematography | 89, 160, 1937. |
| " | *and McLachlin, A. D.* Vomiting produced, in the cat, by ligation of the mesenteric vein | 90, 254, 1937. |
| " | *Barclay, A. E., —— and Macbeth, R. G.* A contribution to the study of ciliary movement | 90, 347, 1937. |
| " | *Barclay, A. E. and.* Reflexes from the bladder and large intestine | 90, 478, 1937. |
| " | *Barclay, A. E. and.* The rate of excretion of Indian ink, injected into the lungs | 90, 482, 1937. |
| " | *and Janker, R.* Coughing studied by means of X-ray cinematography | 92, 467, 1938. |
| " | *Barclay, A. E., Barcroft, J., Barron, D. H. and.* Closing of ductus arteriosus | 93, 36*P*, 1938. |
| " | *Barclay, A. E. and.* The time of functional closure of the foramen ovale in the lamb | 94, 256, 1938. |
| " | *and Maher-Loughnan, G. P.* The 'circular' musculature of the small intestine | 94, 426, 1938. |
| " | Rotatory movements of the apex of the exposed mammalian heart | 96, 164, 1939. |
| Franks, W. R. | Phosphate in tumours and muscle | 74, 195, 1932. |
| Fraser, A. H. H. | , *Godden, W., Snook, L. C. and Thomson, W.* The influence of diet upon ketonaemia in pregnant ewes | 94, 346, 1938. |
| " | , *Godden, W., Snook, L. C. and Thomson, W.* Ketonaemia in pregnant ewes and its possible relation to pregnancy disease | 97, 120, 1939. |
| Fraser, A. M. | The ratio between antidiuretic and pressor activities of posterior pituitary extract subjected to mild hydrolysis | 100, 233, 1941. |
| Fraser, F. R. | *Haldane, J. B. S., Linder, G. C., Hilton, R. and.* The arterial blood in ammonium chloride acidosis | 65, 412, 1928. |
| " | *Barcroft, J., Elliott, R. H. E., ——, Herkel, W., Matthews, B. H. C. and Talaat, M.* A case of deficient acclimatization to low oxygen pressure | 82, 369, 1934. |
| Fraser-Harris, D. F. | A simple method of appreciating the muscular sense | 77, 11*P*, 1932. |
| Frazer, A. C. | *and Walsh, V. G.* An apparatus for the production of finely dispersed emulsions, and the rate of digestion of fat by lipase in relation to the surface area | 78, 467, 1933. |

| | | |
|---|---|---|
| Fraser, A. C. | The adsorption of toxin by finely dispersed oil in water emulsions | 87, 9*P*, 1936. |
| ,, | *and Stewart, H. C.* Ultramicroscopic particles in normal serum | 87, 53*P*, 1936. |
| ,, | *and Stewart, H. C.* Relation of intestinal absorption to serum particle counts | 87, 72*P*, 1936. |
| ,, | *and Stewart, H. C.* Ultramicroscopic particles in normal human blood | 90, 18, 1937. |
| ,, | *and Stewart, H. C.* The composition of ultramicroscopic particles in human blood | 90, 31*P*, 1937. |
| ,, | *and Stewart, H. C.* Inactivation of cobra venom by adsorption | 94, 17*P*, 1938. |
| ,, | *and Stewart, H. C.* Evidence of fat/fatty acid partition in human fat absorption | 94, 24*P*, 1938. |
| ,, | *and Stewart, H. C.* Secondary protection of soap-stabilized oil-in-water emulsion by protein | 95, 5*P*, 1939. |
| ,, | *and Stewart, H. C.* The behaviour of chylomicrons compared with that of protein-protected soap-stabilized oil-in-water emulsions | 95, 7*P*, 1939. |
| ,, | *and Stewart, H. C.* Chylomicrograph technique | 95, 21*P*, 1939. |
| ,, | *and Stewart, H. C.* The interpretation of the normal chylomicrograph | 95, 23*P*, 1939. |
| ,, | *Elkes, J. J.*, —— *and Stewart, H. C.* The composition of particles seen in normal human blood under dark-ground illumination | 95, 68, 1939. |
| Frédericq, H. | *Bacq, Z. M. and.* The action of caffeine and related substances on the effects of autonomic nerve stimulation | 90, 55*P*, 1937. |
| Frémery, P. de | On the influence of different hormones on lactation | 87, 50*P*, 1936. |
| Freud, J. | *Barry, D. T. and.* Toxaemia from liver grafting | 62, xxii, 1927. |
| ,, | The biological action of iodides | 65, xxxiii, 1928. |
| Fromherz, H. | *and Hill, A. V.* The action of veratrine on frog's nerve | 77, 25*P*, 1932. |
| ,, | The action of veratrine, curare and strychnine on the response of medullated nerve | 79, 67, 1933. |
| Fromm, B. | , *Nylén, O. and Zotterman, Y.* Electric stimulation of the cochlea | 80, 3*P*, 1933. |
| Fuchs, H. J. | Modification of Haldane gas analysis apparatus | 91, 8*P*, 1937. |
| ,, | *and Reid, C.* An operating table with thermoregulator | 91, 10*P*, 1937. |
| Fulton, J. F. | *and Ingraham, F. D.* Emotional disturbances following experimental lesions of the base of the brain (pre-chiasmal) | 67, xxvii, 1929. |
| ,, | , *Liddell, E. G. T. and Riock, D. McK.* The influence of experimental lesions of the spinal cord upon the knee-jerk and crossed extensor reflexes | 69, xxvii, 1930. |
| ,, | , *Liddell, E. G. T. and Riock, D. McK.* The influence of unilateral destruction of the vestibular nuclei upon posture and the knee-jerk | 70, xxii, 1930. |

| | | |
|---|---|---|
| Fulton, J. F. | , *Liddell, E. G. T.* and *Rioch, D. McK.* 'Dial' as an anaesthetic for surgical operations on the nervous system | 70, xxiii, 1930. |
| " | *and Sherrington, C. S.* State of the flexor reflex in paraplegic dog and monkey respectively | 75, 17, 1932. |
| Fulton, J. S. | *and McSwiney, B. A.* The pulse wave velocity and extensibility of the brachial and radial artery in man | 69, 386, 1930. |
| Funk, C. | *and Zeflrow, P. P.* Decreased urinary flow in rats on high fat diet | 77, 29*P*, 1932. |
| Funke, G. L. | Problems of plant growth | 90, 72*P*, 1937. |
| Furusawa, K. | *and Hartree, W.* The anaerobic delayed heat production in muscle | 62, 203, 1926. |
| " | A muscle twitch lasting for hours | 62, xxi, 1927. |
| " | *and Kerridge, Phyllis M. Tookey.* The hydrogen ion concentration of the muscles of the cat | 63, 33, 1927. |
| " | The total depolarisation of crustacean nerve | 65, xxvii, 1928. |
| " | The depolarization of crustacean nerve by stimulation or oxygen want | 67, 325, 1929. |
| Gaddie, R. | *Clark, A. J.,* —— *and Stewart, C. P.* The metabolism of the frog's isolated heart | 70, vii, 1930. |
| " | *Clark, A. J.,* —— *and Stewart, C. P.* The metabolism of the isolated heart of the frog | 72, 443, 1931. |
| " | *Clark, A. J.,* —— *and Stewart, C. P.* The carbohydrate metabolism of the isolated heart of the frog | 75, 311, 1932. |
| " | *Clark, A. J.,* —— *and Stewart, C. P.* The anaerobic activity of the isolated frog's heart | 75, 321, 1932. |
| " | *Clark, A. J.,* —— *and Stewart, C. P.* The influence of oxygen pressure on the metabolism of the isolated cold-blooded heart | 77, 432, 1933. |
| " | *and Stewart, C. P.* The anaerobic breakdown of carbohydrate in the isolated ventricle of the frog | 80, 457, 1934. |
| " | *Clark, A. J.,* —— *and Stewart, C. P.* Asphyxial arrest of the isolated frog's ventricle | 82, 265, 1934. |
| " | *Clark, A. J.,* —— *and Stewart, C. P.* The aerobic metabolism of the isolated frog's heart poisoned by iodoacetic acid | 90, 335, 1937. |
| Gaddum, J. H. | The action of adrenalin and ergotamine on the uterus of the rabbit | 61, 141, 1926. |
| " | Quantitative observations on thyroxine and allied substances. I. The use of tadpoles | 64, 246, 1927. |
| " | Some properties of the separated active principles of the pituitary (posterior lobe) | 65, 434, 1928. |
| " | An outflow recorder | 67, xvi, 1929. |
| " | Quantitative observations on thyroxine and allied substances. II. Effects on the oxygen consumption of rats | 68, 383, 1930. |
| " | *Dale, H. H. and.* Reactions of denervated voluntary muscle, and their bearing on the mode of action of parasympathetic and related nerves | 70, 109, 1930. |

| | | |
|---|---|---|
| Gaddum, J. H. | *v. Euler, U. S. and.* An unidentified depressor substance in certain tissue extracts | 72, 74, 1931. |
| „ | *v. Euler, U. S. and.* Pseudomotor contractures after degeneration of the facial nerve | 73, 54, 1931. |
| „ | *and Holtz, P.* The localization of the action of drugs on the pulmonary vessels of dogs and cats | 77, 139, 1933. |
| „ | *Chang, H. C. and.* Choline esters in tissue extracts | 79, 255, 1933. |
| „ | *and Schild, H.* A sensitive physical test for adrenaline | 80, 9P, 1933. |
| „ | *Feldberg, W. and.* The chemical transmitter at synapses in a sympathetic ganglion | 80, 12P, 1933. |
| „ | *Feldberg, W. and.* The chemical transmitter at synapses in a sympathetic ganglion | 81, 305, 1934. |
| „ | *Barsoum, G., —— and Khayyal, M. A.* The liberation of a choline ester in the inferior mesenteric ganglion | 82, 9P, 1934. |
| „ | *and Schild, H.* Depressor substances in extracts of intestine | 83, 1, 1934. |
| „ | *Barsoum, G. S. and.* The pharmacological estimation of adenosine and histamine in blood | 85, 1, 1935. |
| „ | *Barsoum, G. S. and.* The liberation of histamine during reactive hyperaemia | 85, 13P, 1935. |
| „ | The quantitative effects of antagonistic drugs | 89, 7P, 1936. |
| „ | *, Khayyal, M. A. and Rydin, H.* The release of pharmacologically active substances by nerve trunks during electrical stimulation | 89, 9P, 1936. |
| „ | *and Kwiatkowski, H.* The action of ephedrine | 94, 87, 1938. |
| „ | *, Jang, C. S. and Kwiatkowski, H.* The effect on the intestine of the substance liberated by adrenergic nerves in a rabbit's ear | 96, 104, 1939. |
| „ | *and Kwiatkowski, H.* Properties of the substance liberated by adrenergic nerves in the rabbit's ear | 96, 385, 1939. |
| „ | A method of recording the respiration | 99, 257, 1941. |
| Gage, F. H. | A fixed-focus projector for the measurement of spectra | 68, xvi, 1929. |
| „ | *and Shazby, J. H.* Modification of speech sounds in passing through acoustic filters | 77, 16P, 1932. |
| „ | *and Shazby, J. H.* The regions of greatest energy in the production of vowel sounds. (Demonstration) | 77, 18P, 1932. |
| Gaissinsky, B. E. | *and Lewantowsky, M. I.* Changes in striped muscle after sympathectomy | 67, iv, 1928. |
| Gallimore, E. J. | *Blyth, J. S. S., Dodds, E. C. and.* Observations on the assay of the comb-growth promoting hormone | 73, 136, 1931. |
| Garofolini, L. | (Presented by Prof. Giulio Fano.) Rhythmical contractions of single heart muscle cells in tissue culture *in vitro* | 63, v, 1927. |
| „ | *Fano, G. and.* Culture *in vitro* of germinal epithelium from embryo chick | 63, vi, 1927. |
| Garrard, B. M. | The osmotic pressure of the blood of *Fundulus* living in salt water and in fresh water | 85, 6P, 1935. |

| | | |
|---|---|---|
| Garry, R. C. | The static effort and the excretion of uric acid | 62, 364, 1927. |
| | The effect of oxygen lack on surviving smooth muscle | 66, 235, 1928. |
| " | 'Amytal' and the inhibitory action of the vagus on the heart | 69, xii, 1930. |
| " | *and Wishart, G. M.* On the existence of a most efficient speed in bicycle pedalling, and the problem of determining human muscular efficiency | 72, 425, 1931. |
| " | *Bell, G. H. and.* A convenient valve method of eliminating the 'make' shock of induction coils | 72, 14*P*, 1931. |
| " | Observations on the caudal region of the large bowel | 74, 14*P*, 1932. |
| " | *Brown, G. L. and.* Reversal of the gastric vagus | 75, 213, 1932. |
| " | The nervous control of the caudal region of the large bowel in the cat | 77, 422, 1933. |
| " | The responses to stimulation of the caudal end of the large bowel in the cat | 78, 208, 1933. |
| " | Reflex interdependence of the internal and external anal sphincters | 78, 30*P*, 1933. |
| " | *and Wishart, G. M.* The efficiency of bicycle pedalling in the trained subject | 82, 200, 1934. |
| " | *Davidson, J. N. and.* The absorption of monosaccharides from the large intestine of the rat under urethane anaesthesia | 96, 172, 1939. |
| " | *Davidson, J. N. and.* The absorption of monosaccharides from the distal small intestine of anaesthetized cats | 97, 509, 1940. |
| " | *, Andrew, B. L., Davidson, J. N. and.* The absorption of water from the colon of the rat under urethane anaesthesia | 98, 487, 1940. |
| " | *Davidson, J. N. and.* The absorption of pentoses from the small intestine of the rat under urethane anaesthesia | 99, 239, 1941. |
| Garven, H. S. D. | *Buchanan, D. N. and.* The chronaxie in tetany. The effect on the chronaxie of thyreoparathyreoidectomy, the administration of guanidin and of di-methyl guanidin | 62, 115, 1926. |
| Gasser, H. S. | The changes produced in the injury discharge of nerve fibres during the period following a propagated disturbance | 85, 15*P*, 1935. |
| Gaunt, W. E. | *Bain, W. A., —— and Suffolk, S. F.* The inactivation of adrenaline by blood *in vitro* | 87, 8*P*, 1936. |
| " | *Bain, W. A., —— and Suffolk, S. F.* Observations on the inactivation of adrenaline by blood and tissues *in vitro* | 91, 233, 1937. |
| " | *and Irving, J. T.* Influence of Ca and P intake on tooth formation | 95, 51*P*, 1939. |
| " | *and Irving, J. T.* The influence of dietary calcium and phosphorus upon tooth formation | 99, 18, 1940. |
| " | *, Griffith, H. D. and Irving, J. T.* The assimilation of radio-active phosphorus following phosphorus deficiency in rats | 100, 372, 1942. |

| | | |
|---|---|---|
| GAVIN, GERTRUDE | *, McHenry, E. W. and Wilson, M. J.* Histamine in canine gastric tissues | 79, 234, 1933. |
| GAVRILESCU, N. | *and Peters, R. A. In vitro* action of antineuritic yeast concentrates | 72, 32*P*, 1931. |
| GEIGER, A. | A method of ultra-filtration *in vivo* | 71, 111, 1931. |
| GELFAN, S. | Rhythmic activity in skeletal muscle fibres | 78, 271, 1933. |
| ,, | The submaximal responses of the single muscle fibre | 80, 285, 1933. |
| GÉRARD, P. | *Cordier, R. and.* Athrophagocytosis in the open nephrons of *Xenopus laevis* | 90, 77*P*, 1937. |
| GERARD, R. W. | The two phases of heat production of nerve | 62, 349, 1927. |
| ,, | *, Hill, A. V. and Zotterman, Y.* The effect of frequency of stimulation on the heat production of nerve | 63, 130, 1927. |
| ,, | Studies on nerve metabolism. I. The influence of oxygen lack on heat production and action current | 63, 280, 1927. |
| ,, | The irritability of a non-medullated nerve | 83, 24*P*, 1934. |
| ,, | *Cattell, McKeen and.* The 'inhibitory' effect of high-frequency stimulation and the excitation state of nerve | 83, 26*P*, 1934. |
| ,, | *Cattell, McKeen and.* The 'inhibitory' effect of high-frequency stimulation and the excitation state of nerve | 83, 407, 1935. |
| GERSUNI, G. V. | *and Volokhov, A. A.* On the effect of alternating currents on the cochlea | 89, 113, 1937. |
| ,, | *Arapova, A. A., —— and Volokhov, A. A.* A further analysis of the action of alternating currents on the auditory apparatus | 89, 122, 1937. |
| GHOSE, A. C. | The blood cholesterol in anaesthesia | 77, 97, 1932. |
| GIBBS, O. S. | *and Szelóczey, J.* Humoral transmission and the chorda tympani | 76, 15*P*, 1932. |
| ,, | On the alleged occurrence of acetylcholine in the saliva | 84, 33, 1935. |
| GILDING, H. P. | The course of the vaso-constrictor nerves to the periphery | 74, 34, 1932. |
| ,, | *Franklin, K. J. and.* A pleural cannula | 75, 1*P*, 1932. |
| ,, | *Drummond, J. C., —— and MacWalter, R. J.* The fate of carotene introduced into the circulation | 82, 75, 1934. |
| GILLESPIE, J. H. | The biological significance of the linkages in adenosine triphosphoric acid | 80, 345, 1934. |
| GILMAN, A. | *and Goodman, L.* The secretory response of the posterior pituitary to the need for water conservation | 90, 113, 1937. |
| GLAISTER, DEBORAH | *and Kerly, Margaret.* The oxygen consumption and carbohydrate metabolism of the retractor muscle of the foot of *Mytilus edulis* | 87, 56, 1936. |
| GLENNIE, A. E. | *Magee, H. E. and.* Effect of ether anaesthesia on some blood constituents | 64, x, 1927. |
| GLOCK, G. E. | Glycogen and calcification | 98, 1, 1940. |
| GLÜCKSMANN, A. | *and Tansley, Katharine.* The formation of an additional fibre layer in the developing rat retina after γ-radiation | 87, 1*P*, 1936. |

| | | |
|---|---|---|
| Goadby, H. | *Goadby, K. and.* Simultaneous photographic records of the potential and resistance effects of the psycho-emotive response | 86, 11*P*, 1935. |
| Goadby, H. K. | *and Richardson, J. S.* On the disappearance from the blood of intravenously injected insulin | 97, 417, 1940. |
| Goadby, K. | *and Goadby, H.* Simultaneous photographic records of the potential and resistance effects of the psycho-emotive response | 86, 11*P*, 1935. |
| Godden, W. | *Fraser, A. H. H., ——, Snook, L. C. and Thomson, W.* The influence of diet upon ketonaemia in pregnant ewes | 94, 346, 1938. |
| ,, | *Fraser, A. H. H., ——, Snook, L. C. and Thomson, W.* Ketonaemia in pregnant ewes and its possible relation to pregnancy disease | 97, 120, 1939. |
| ,, | *Duckworth, J. and.* The influence of diets low in magnesium upon the chemical composition of the incisor tooth of the rat | 99, 1, 1940. |
| Goggio, A. F. | *Downman, C. B., ——, McSwiney, B. A. and Young, M. H. C.* Reflex vaso-motor responses from the paws of the cat | 96, 14*P*, 1939. |
| Gohar, H. A. F. | The effect of diet, of insulin and of thyroxine upon the adrenaline content of the suprarenal glands | 80, 305, 1933. |
| ,, | *Daoud, K. M. and.* The correlation between the action of insulin and adrenaline upon the muscle and liver glycogen | 80, 314, 1933. |
| Goldblatt, M. W. | Ergotamine and the effect of adrenaline on blood lactate | 78, 96, 1933. |
| ,, | Insulin and adrenaline | 79, 286, 1933. |
| ,, | Properties of human seminal plasma | 84, 208, 1935. |
| ,, | Insulin and the thyroidectomized rabbit | 86, 46, 1936. |
| Golla, Y. M. L. | *and Reiss, M.* (Introduced by J. H. Gaddum.) Observations on adreno-corticotrophic action | 100, 1*P*, 1941. |
| Goodeve, C. F. | *Broda, E. E., —— and Lythgoe, R. J.* The weight of the chromophore carrier in the visual purple molecule | 98, 397, 1940. |
| Goodhart, G. W. | *Bolton, C. and.* The variations in the acidity of the gastric juice during secretion | 73, 115, 1931. |
| ,, | *Bolton, C. and.* The mucus factor in the automatic regulation of the acidity of the gastric contents | 77, 287, 1933. |
| ,, | *Bolton, C. and.* The role of duodenal regurgitation in the automatic regulation of the gastric acidity | 87, 360, 1936. |
| Goodhart, R. S. | *and Sinclair, H. M.* Cocarboxylase (vitamin $B_1$ diphosphate) in blood | 95, 57*P*, 1939. |
| Goodman, E. N. | *Adair, G. S. and.* A note on the potential difference across the stomach membranes in human subjects, and a simple type of calomel electrode | 87, 35*P*, 1936. |
| ,, | *Adair, G. S., Barcroft, J., Barron, D. H., ——, Hall, E. H., Hayasi, K., O'Brien, A., Pace, J. F. and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37*P*, 1936. |

| | | |
|---|---|---|
| Goodman, L. | *Gilman, A. and.* The secretory response of the posterior pituitary to the need for water conservation | 90, 113, 1937. |
| Goormaghtigh, N. | The heterogeneous structure of the arteriolar media | 90, 63*P*, 1937. |
| Gordon, J. | *and Robson, J. M.* Inhibition of the anaphylactic reaction by congo red | 75, 305, 1932. |
| Gordon-Wilson, C. | *Smith, F. Campbell and.* The cadmium photo-electric cell as a means of measuring the absorption of ultra-violet radiation in dilute physiological fluids. (Preliminary note) | 66, xx, 1928. |
| " | , *Smart, W. A. M. and Smith, F. Campbell.* A photo-electric haemoglobinometer | 69, xxii, 1930. |
| Gorer, P. A. | *and Pembrey, M. S.* Observations on the respiratory exchange of hibernating mammals | 67, xxi, 1929. |
| Gorrill, F. S. | An apparatus for the study of whole isolated arteries | 81, 27*P*, 1934. |
| " | , *D'Silva, J. L. and McDowall, R. J. S.* The adrenaline-like substance of *Cytisus scoparius* | 83, 37*P*, 1934. |
| Gotsev, T. | *Barcroft, J. and.* Acquisition of blood by the foetus from the placenta at birth | 90, 27*P*, 1937. |
| " | The blood volume in lambs | 94, 539, 1939. |
| Graff, A. C. de | , *Evans, C. Lovatt and Vacek, T.* The behaviour of liver glycogen in experimental animals. III. The relationship of blood phosphorus to liver glycogen and blood glucose in the decapitate cat | 76, 387, 1932. |
| " | *Evans, C. Lovatt, ——, Kosaka, T., Mackenzie, K., Murphy, G. E., Vacek, T., Williams, D. H. and Young, F. G.* The utilisation of blood sugar and lactate by the heart-lung preparation | 80, 21, 1933. |
| Graham, J. D. P. | A note on the action of atropine in the bird | 93, 56*P*, 1938. |
| " | The air stream in the lung of the fowl | 97, 133, 1939. |
| " | Respiratory reflexes in the fowl | 97, 525, 1940. |
| Graham, S. G. | *Ford, F. J., —— and Morris, N.* Difference between the retentions of calcium and phosphorus as a factor in the production of infantile tetany | 75, 33*P*, 1932. |
| Grande, F. | *and Lee, D. H. K.* The effect of breathing $CO_2$ on the resting blood lactate level | 84, 28*P*, 1935. |
| " | *and Hsu, F. Y.* The distribution of blood sugar | 84, 29*P*, 1935. |
| Granit, R. | *Creed, R. S. and.* On the latency of negative after-images following stimulation of different areas of the retina | 66, 281, 1928. |
| " | *Eccles, J. C. and.* Crossed extensor reflexes and their interaction | 67, 97, 1929. |
| " | Interaction between distant areas in the human eye | 69, xvii, 1930. |
| " | Isolation of components in the retinal action potential of the decerebrate dark-adapted cat | 76, 1*P*, 1932. |

| | | |
|---|---|---|
| GRANIT, R. | The components of the retinal action potential in mammals and their relation to the discharge in the optic nerve | 77, 207, 1933. |
| " | *Eccles, J. C., —— and Young, J. Z.* Impulses in the giant nerve fibres of earthworms | 77, 23P, 1932. |
| " | *Creed, R. S. and.* Observations on the retinal action potential with especial reference to the response to intermittent stimulation | 78, 419, 1933. |
| " | *Cooper, Sybil, Creed, R. S. and.* A note on the retinal action potential of the human eye | 79, 185, 1933. |
| " | *and Riddell, L. A.* The electrical responses of light and dark-adapted frogs' eyes to rhythmic and continuous stimuli | 81, 1, 1934. |
| " | *and Therman, P. O.* Inhibition of the off-effect in the optic nerve and its relation to the equivalent phase of the retinal response | 81, 47P, 1934. |
| " | *and Therman, P. O.* Excitation and inhibition in the retina and in the optic nerve | 83, 359, 1935. |
| " | Two types of retinae and their electrical responses to intermittent stimuli in light and dark adaptation | 85, 421, 1935. |
| " | , *Rubenstein, B. and Therman, P. O.* A new type of interaction experiment with the retinal action potential | 85, 34P, 1935. |
| " | *and Munsterhjelm, A.* The electrical responses of dark-adapted frogs' eyes to monochromatic stimuli | 88, 436, 1937. |
| " | *and Wrede, C. M.* The electrical responses of light-adapted frogs' eyes to monochromatic stimuli | 89, 239, 1937. |
| " | *and Therman, P. O.* Excitation and inhibition in the off-effect of the retina | 91, 127, 1937. |
| " | *and Therman, P. O.* The 'slow potentials' associated with excitation and inhibition in the excised eye | 93, 9P, 1938. |
| " | , *Holmberg, T. and Zewi, M.* On the mode of action of visual purple on the rod cell | 94, 430, 1938. |
| " | , *Munsterhjelm, A. and Zewi, M.* The relation between concentration of visual purple and retinal sensitivity to light during dark adaptation | 96, 31, 1939. |
| GRANT, RHODA | The formation of liver glycogen in the cat, under various conditions, following infusion of ammonium lactate | 80, 41, 1933. |
| " | *Best, C. H., —— and Ridout, Jessie H.* The 'lipotropic' effect of dietary protein | 86, 337, 1936. |
| GRANT, R. T. | *and Rothschild, P.* A device for estimating blood-pressure in the rabbit | 81, 265, 1934. |
| GRASS, A. M. | *Forbes, A. and.* A simple direct-coupled amplifier for action potentials | 91, 31, 1937. |
| GREENBAUM, A. | , *Kerridge, Phyllis M. T. and Ross, E. J.* Normal hearing by bone conduction | 94, 14P, 1938. |
| GREENE, CARL H. | *Aldrich, Martha and Rountree, L. G.* Studies in the metabolism of the bile acids | 64, VII, 1927. |

| | | |
|---|---|---|
| GREENE, C. R. | *Douglas, C. G.*, —— *and Kerpin, F. G.* The influence of ammonium chloride on adaptation to low barometric pressures | 78, 404, 1933 |
| GREENE, C. W. | Unique characteristics of the electrogram of the isolated and automatically contracting uterus of the rat | 64, XIV, 1927. |
| GREENE, R. | Observations on absence of cyanosis at great altitudes | 76, 2*P*, 1932. |
| „ | Observations on the composition of alveolar air on Everest, 1933 | 82, 481, 1934. |
| GREENFIELD, A. D. M. | *and Jones, E. I.* (Introduced by A. St G. Huggett.) Price-Jones curves from a case of polycythaemia rubra vera, before, during, and after treatment with phenylhydrazine | 99, 2*P*, 1941. |
| GREESON, C. E. | *Barcroft, J., Benatt, A.*, —— *and Nisimaru, Y.* The rate of blood flow through cyanosed skin | 73, 344, 1931. |
| GREGORY, R. A. | *and Lee, D. H. K.* The regulation of cardiac rate during exposure to heat | 85, 39*P*, 1935. |
| „ | *and Lee, D. H. K.* The effect of water intake upon human reactions to reduced cooling powers | 86, 204, 1936. |
| „ | *Code, C. F., Evans, C. Lovatt and.* Blood histamine and cardiac activity | 92, 344, 1938. |
| „ | A new oxygenator for blood-perfused hearts | 95, 49*P*, 1939. |
| GREMELS, H. | *Lambert, R. K. and.* On the factors concerned in the production of pulmonary oedema | 61, 98, 1926. |
| „ | *and Starling, E. H.* On the influence of hydrogen ion concentration and of anoxaemia upon the heart volume | 61, 297, 1926. |
| GRIEVE, W. S. M. | *Aylward, F. X.*, ——, *Mainwaring, B. R. S. and Wilkinson, J. F.* The haemopoietic activity of mammalian livers | 100, 94, 1941. |
| GRIFFITH, H. D. | *Irving, J. T. and Mason, E. M.* The influence of ingested radioactive materials upon the thyroid gland of rats | 95, 516, 1939. |
| „ | *Gaunt, W. E.*, —— *and Irving, J. T.* The assimilation of radio-active phosphorus following phosphorus deficiency in rats | 100, 372, 1942. |
| GRIFFITHS, M. | The influence of anterior pituitary extracts on the insulin content of the pancreas of the hypophysectomized rat | 100, 104, 1941. |
| „ | The antagonism between insulin and posterior lobe pituitary extract | 100, 112, 1941. |
| GRIFFITHS, W. J. | *MacLean, H. and.* The factors influencing the concentration of hydrochloric acid during gastric digestion | 65, 63, 1928. |
| „ | *MacLean, H.*, —— *and Williams, B. W.* Variations in the acidity and total chloride contained in the secretion from an isolated Pavlov pouch in the dog | 65, 77, 1928. |
| „ | *MacLean, H. and.* The automatic regulation of gastric acidity | 66, 356, 1928. |

| | | |
|---|---|---|
| Griffiths, W. J. | *MacLean, H., —— and Hughes, T. A.* The relationship of peptic activity to neutral chloride secretion during gastric digestion in man | 67, 409, 1929. |
| „ | The duodenum and the automatic control of gastric acidity | 87, 34, 1936. |
| Grimson, K. S. | *Bouckaert, J. J., —— and Heymans, C.* The importance of carotid sinus and vago-sympathetic-aortic nerves in respiratory and circulatory responses of decerebrate cats to oxygen want | 95, 43*P*, 1939. |
| „ | The onset of renal ischaemia hypertension induced by readily adjustable renal artery clamps | 95, 45*P*, 1939. |
| „ | *Bouckaert, J. J., —— and Heymans, C.* Increase of blood pressure by perfusion of the ischaemic kidneys of hypertensive dogs | 96, 44*P*, 1939. |
| Grindley, G. C. | The relation between the rod and cone mechanisms in the after-effect of seen movement | 69, 53, 1930. |
| Grollman, A. | The measurement of the circulation rate in man by the acetylene method | 70, xxxix, 1930. |
| Grundfest, H. | Excitability of the single fibre nerve-muscle complex | 76, 95, 1932. |
| Gudjonsson, Sk. V. | The body temperature in rats on normal and deficient diets. (Preliminary report) | 74, 73, 1932. |
| Guimarãis, J. A. | (With a note by H. H. Dale.) Effects of sympathetic impulses and adrenaline on salivary secretion | 83, 43*P*, 1935. |
| „ | *Feldberg, W. and.* Some observations on salivary secretion | 85, 15, 1935. |
| „ | The secretagogue and depressor substances in saliva and pancreatic juice | 86, 95, 1936. |
| „ | *Feldberg, W. and.* The liberation of acetylcholine by potassium | 86, 306, 1936. |
| Gunn, J. A. | An apparatus for measuring transudation through a living membrane | 71, 412, 1931. |
| „ | , *Epstein, D., Gunn, J. A. and Virden, C. J.* The action of some amines related to adrenaline. I. Methoxy-phenylethylamines | 76, 224, 1932. |
| „ | *Elphick, G. K. and.* The action of some amines related to adrenaline, methoxyphenylmethoxyethylamines | 81, 422, 1934. |
| „ | , *Gurd, M. R. and Sachs, I.* The action of some amines related to adrenaline: methoxyphenylisopropylamines | 95, 485, 1939. |
| „ | *and Gurd, M. R.* The action of some amines related to adrenaline. Cyclohexylalkylamines | 97, 453, 1940. |
| „ | *and Gurd, M. R.* The action of some amines related to adrenaline: phenylallylamine, phenylbutenylamine, diphenylethylamine | 98, 424, 1940. |
| „ | The pharmacological actions of morphothebaine-dimethylether | 100, 64, 1941. |

| | | |
|---|---|---|
| Gurd, M. R. | (Introduced by J. H. Burn.) An electrical time recorder controlled by a leaking condenser | 86, 59P, 1936. |
| " | *Gunn, J. A., —— and Sachs, I.* The action of some amines related to adrenaline: methoxy-phenylisopropylamines | 95, 485, 1939. |
| " | *Gunn, J. A. and.* The action of some amines related to adrenaline. Cyclohexylalkylamines | 97, 453, 1940. |
| " | *Gunn, J. A. and.* The action of some amines related to adrenaline: phenylallylamine, phenylbutenylamine, diphenylethylamine | 98, 424, 1940. |
| Guthkelch, A. N. | *and Zuckerman, S.* Concentration of the blood in relation to the menstrual cycle in monkeys | 89, 51P, 1937. |
| " | *and Zuckerman, S.* The red cell count of macaques in relation to the menstrual cycle | 91, 269, 1937. |
| Hailwood, J. G. | *and Roaf, H. E.* The sensation of yellow and anomalous trichromatism | 91, 36, 1937. |
| Haines, F. M. | A method of propelling air round small enclosed circuits | 63, 94, 1927. |
| Haist, R. E. | *Best, C. H., —— and Ridout, Jessie H.* Diet and the insulin content of pancreas | 97, 107, 1939. |
| " | *Best, C. H., Campbell, J. and.* The effect of anterior pituitary extracts on the insulin content of the pancreas | 97, 200, 1939. |
| " | The pituitary and the insulin content of pancreas | 98, 419, 1940. |
| " | *Best, C. H. and.* The effect of insulin administration on the insulin content of the pancreas | 100, 142, 1941. |
| Haldane, J. B. S. | *, Linder, G. C., Hilton, R. and Fraser, F. R.* The arterial blood in ammonium chloride acidosis | 65, 412, 1928. |
| " | Pituitrin and the chloride concentrating power of the kidneys | 66, x, 1928. |
| Haldane, J. S. | Claude Bernard's conception of the internal environment | 67, xxii, 1929. |
| " | The physiological significance of Weber's law and colour contrast in vision | 79, 121, 1933. |
| Hall, E. H. | *Adair, G. S., Barcroft, J., Barron, D. H., Goodman, E. N., ——, Hayasi, K., O'Brien, A., Pace, J. F. and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37P, 1936. |
| Hall, F. G. | A spectroscopic method for the study of haemoglobin in dilute solutions | 80, 502, 1934. |
| " | A spectroscopic comparison of foetal and maternal blood of the rabbit and goat | 82, 33, 1934. |
| " | *Elliott, R. H., —— and Huggett, A. St G.* The blood volume and oxygen capacity of the foetal blood in the goat | 82, 160, 1934. |
| " | *Barcroft, J., Elliott, R. H. E., Flexner, L. B., ——, Herkel, W., McCarthy, E. F., McClurkin, T. and Talaat, M.* Conditions of foetal respiration in the goat | 83, 192, 1934. |

| | | |
|---|---|---|
| HALL, F. G. | Haemoglobin function in the developing chick | 83, 222, 1934. |
| HALL, G. E. | *Ettinger, G. H. and.* Acetylcholine in ox and dog blood | 82, 38, 1934. |
| HALL, K. | *and Korenchevsky, V.* Effects of castration and of sexual hormones on the adrenals of male rats | 91, 365, 1938. |
| HALLPIKE, C. S. | The precise anatomy of the Hensen's cells in cochlea of the guinea-pig and its physiological significance | 73, 8*P*, 1931. |
| " | *Ashcroft, D. W. and.* Action potentials in the saccular nerve of the frog | 81, 23*P*, 1934. |
| " | *and Rawdon-Smith, A. F.* The function of the tensor tympani muscle | 81, 25*P*, 1934. |
| " | *and Rawdon-Smith, A. F.* The 'Wever and Bray phenomenon'. A study of the electrical response in the cochlea with especial reference to its origin | 81, 395, 1934. |
| " | *and Rawdon-Smith, A. F.* The origin of the Wever and Bray phenomenon | 83, 243, 1934. |
| " | *, Hartridge, H. and Rawdon-Smith, A. F.* Notes on a sine wave and phase-change siren | 86, 68*P*, 1936. |
| " | *Alfred, P., —— and Ledoux, A.* Observations on the osmotic pressure of the endolymph | 98, 446, 1940. |
| " | *and Scott, P.* Observations on the function of the round window | 99, 76, 1940. |
| HAMILL, P. | *and Walker, M. B.* The action of 'prostigmin' (Roche) in neuro-muscular disorders | 84, 36*P*, 1935. |
| HAMILTON, ALISON M. | *Eggleton, M. Grace, Eggleton, P. and.* Distribution of chloride in frog's skeletal muscle immersed in saline solution | 90, 167, 1937. |
| HAMILTON, W. F. | *, Spradlin, M. C. and Saam, H. G., Jr.* The $CO_2$ of the mixed venous blood of man | 70, 244, 1930. |
| HAMMARSTEN, E. | The behaviour of crystallized secretin when digested with proteolytic enzymes | 90, 330, 1937. |
| HAMMOND, J. | *and Marshall, F. H. A.* Oestrus and pseudo-pregnancy in the ferret | 65, xvii, 1928. |
| HAMMOUDA, M. | *and Kinosita, R.* The coronary circulation in the isolated heart | 61, 615, 1926. |
| " | *Wilson, W. H. and.* Method of investigating the effects of distension and collapse of the lungs on the respiratory rhythm in animals | 66, vi, 1928. |
| " | *Anrep, G. V., Blalock, A. and.* The distribution of the blood in the coronary blood vessels | 67, 87, 1929. |
| " | *and Wilson, W. H.* The vagus influences giving rise to the phenomena accompanying expansion and collapse of the lungs | 74, 81, 1932. |
| " | *Anrep, G. V. and.* Observations on panting | 77, 16, 1932. |
| " | The central and the reflex mechanism of panting | 77, 319, 1933. |
| " | *and Wilson, W. H.* Influences which affect the form of the respiratory cycle, in particular that of the expiratory phase | 80, 261, 1933. |

| | | |
|---|---|---|
| HAMMOUDA, M. | *and Stella, G.* Afferent impulses in the pulmonary vagus | 83, 10*P*, 1934. |
| " | *and Wilson, W. H.* The presence in the vagus of fibres transmitting impulses augmenting the frequency of respiration | 83, 292, 1935. |
| " | *and Wilson, W. H.* Further observations on the respiratory-accelerator fibres of the vagus | 85, 62, 1935. |
| " | *and Wilson, W. H.* Reflex slowing of respiration accompanying changes in the intra-pulmonary pressure | 88, 284, 1936. |
| " | *Wilson, W. H. and.* The respiratory response to the excitation of a sensory nerve | 93, 39*P*, 1938. |
| " | *and Wilson, W. H.* Reflex acceleration of respiration arising from excitation of the vagus or its terminations in the lungs | 94, 497, 1939. |
| HAMPSON, A. C. | *and Maizels, M.* The effects of variations in *p*H on the volume of red cells. (Preliminary communication) | 62, xvi, 1926. |
| " | *Maizels, M. and.* The effect of *p*H on the distribution of phosphorus between human red cells and potassium phosphate solutions. (Preliminary communication) | 63, i, 1927. |
| " | *and Maizels, M.* The difference of *p*H between plasma and red cells | 64, xx, 1927. |
| HANDOVSKY, H. | *and Samaan, A.* Observations on the renal circulation in non-anaesthetized dogs | 85, 30*P*, 1935. |
| " | *and Samaan, A.* Observations on the renal circulation and secretion in the dog, with special reference to the effect of pituitary (posterior lobe) extract | 89, 14, 1937. |
| " | Chronic hypertension in dogs during the oral administration of vitamin $D_3$ | 90, 62*P*, 1937. |
| HANDY, J. | *Phemister, D. B. and.* Vascular properties of traumatised and laked bloods | 64, 155, 1927. |
| HARDING, R. D. | *Creed, R. S. and.* Latency of after-images and interaction between the two retino-cerebral apparatuses in man | 69, 423, 1930. |
| HARDY, W. B. | Note on the central nervous system of the crayfish | 67, 166, 1929. |
| HARMER, I. M. | *Lewis, T. and.* Release of vaso-dilator substances in injuries of the skin | 62, xi, 1926. |
| HARPER, A. A. | , *McSwiney, B. A. and Suffolk, S. F.* Afferent fibres from the abdomen in the vagus nerves | 85, 267, 1935. |
| " | *and McSwiney, B. A.* The spinal pathways of the pupillo-dilator reflex | 89, 47*P*, 1937. |
| " | *and McSwiney, B. A.* Ascending spinal pathways of the pupillo-dilator fibres | 90, 395, 1937. |
| " | *Carmichael, E. A., Doupe, J., —— and McSwiney, B. A.* Vasomotor reflexes in man following duodenal distension | 95, 276, 1939. |
| " | *and Vass, C. C. N.* The control of the external secretion of the pancreas in cats | 99, 415, 1941. |

| | | |
|---|---|---|
| HARREVELD, A. VAN | *and Wiersma, C. A. G.* The double motor innervation of the adductor muscle in the claw of the crayfish | 88, 78, 1936. |
| HARRIS, D. T. | Three-stage amplifier for bioelectric currents and potential differences | 65, XXXVI, 1928. |
| „ | Thermionic drop-recorder | 71, XXII, 1931. |
| „ | Electrophoresis apparatus | 78, 8*P*, 1933. |
| „ | *and Rosenberg, H.* The strength-duration curve for constant electrotonic potential in nerve | 84, 11*P*, 1935. |
| „ | *, Rosenberg, H. and Sager, O.* The strength-frequency relation for constant A.C. electrotonus in frog's nerve | 86, 4*P*, 1935. |
| „ | *Bateman, J. B., ——, May, E. and Rosenberg, H.* The ultra-high frequency conductivity of tissues | 89, 28*P*, 1937. |
| HARRIS, D. F. | The formation and permanence of colourless crystals of haemoglobin of guinea-pig and rat | 61, XX, 1926. |
| „ | The polariscopic appearance of colourless 'crystals' of haemoglobin | 61, XXXIV, 1926. |
| HARRIS, G. W. | The induction of pseudo-pregnancy in the rat by electrical stimulation through the head | 87, 61*P*, 1936. |
| „ | The induction of pseudo-pregnancy in the rat by electrical stimulation through the head | 88, 361, 1936. |
| „ | Further evidence concerning the role of the hypothalamus in the induction of ovulation in the rabbit following injections of copper acetate | 100, 231, 1941. |
| HARRIS, I. | *, Rubin, E. L. and Shutt, W. J.* Modifications in the use of the glass electrode for the determination of the *p*H of venous blood | 81, 147, 1934. |
| „ | The resistance of arterial walls and its effect on blood-pressure readings | 81, 270, 1934. |
| „ | *Duffield, F. A. and.* Increase of pressure in veins to level of arterial pressure caused by constricting the limb in which the venous pressure is recorded | 81, 283, 1934. |
| „ | *and Levin, D. A.* The effects upon the human electrocardiogram of the introduction of calcium and potassium into the blood | 89, 153, 1937. |
| „ | *, Ireland, J. T. and James, G. V.* The effect of the level of inorganic bases in blood on the catabolism of food protein | 99, 370, 1941. |
| HARRISON, D. C. | *Mellanby, E., Surie, E. M. and.* The anti-rachitic effect of ergot | 65, XXIX, 1928. |
| HARRISON, J. S. | An apparatus for mammalian heart perfusion | 72, 21*P*, 1931. |
| „ | *and McSwiney, B. A.* The chemical transmitter of motor impulses to the stomach | 87, 79, 1936. |
| HARRISON, T. R. | *Abeloos, M., Barcroft, J., Cordero, N., —— and Sendroy, J.* The measurement of the oxygen capacity of haemoglobin | 66, 262, 1928. |
| „ | *, Robinson, C. S. and Syllaba, G.* The effect of muscular exercise on the oxygen capacity of the blood of man | 67, 62, 1929. |

| | | |
|---|---|---|
| Harrop, G. A., Jr. | *and Waterfield, R. L.* The effect of posture on the composition and volume of the blood and on its selective diffusion into the lymph spaces | 70, xxxii, 1930. |
| Harteree, W. | An analysis of the initial heat production in the voluntary muscle of the tortoise | 61, 255, 1926. |
| " | *and Liljestrand, G.* The recovery heat production in tortoise's muscle | 62, 93, 1926. |
| " | *Furusawa, K. and.* The anaerobic delayed heat production in muscle | 62, 203, 1926. |
| " | The identical source of work and heat in muscular contraction | 65, 385, 1928. |
| " | The identity of the response of muscle to direct and indirect stimulation | 67, 372, 1929. |
| " | The analysis of the initial heat production of muscle | 72, 1, 1931. |
| " | *Cattell, McKeen and.* The delayed anaerobic heat production of stimulated muscle | 74, 221, 1932. |
| " | The analysis of the delayed heat production of muscle | 75, 273, 1932. |
| " | A negative phase in the heat production of muscle | 77, 104, 1932. |
| " | The electrical resistance of stimulated muscle | 79, 487, 1933. |
| " | A revised analysis of the initial heat production of muscle | 79, 492, 1933. |
| Hartridge, H. | *and Roughton, F. J. W.* The rate of distribution of dissolved gases between the red blood corpuscle and its fluid environment. Part I. Preliminary experiments on the rate of uptake of oxygen and carbon monoxide by sheep's corpuscles | 62, 232, 1927. |
| " | *and Roughton, F. J. W.* Photographic methods of estimating the percentage saturation of haemoglobin with various gases. I. The ratio of oxyhaemoglobin to carboxyhaemoglobin | 64, 405, 1928. |
| " | The future of the cathode-ray tube in physiology | 77, 39*P*, 1933. |
| " | Ground congo-red fibrin for testing velocities of enzymes | 81, 11*P*, 1934. |
| " | Vacuum operated reaction velocity apparatus (stationary fluid method) | 81, 12*P*, 1934. |
| " | Rotating disc method of changing phase in a musical tone | 81, 13*P*, 1934. |
| " | The apparent advance and retreat of black, white and colours | 81, 14*P*, 1934. |
| " | The resonance theory of hearing | 81, 15*P*, 1934. |
| " | Apparatus for the stereophonic reproduction of sounds | 81, 17*P*, 1934. |
| " | *Ching, J. and.* The physiology of rapid movements | 83, 40*P*, 1934. |
| " | Effect of phase change on the human ear | 86, 64*P*, 1936. |
| " | *Hallpike, C. S., —— and Rawdon-Smith, A. F.* Notes on a sine wave and phase-change siren | 86, 66*P*, 1936. |
| Harvey, A. M. | *Brown, G. L. and.* Neuro-muscular conduction in the fowl | 92, 24*P*, 1938. |

| | | |
|---|---|---|
| HARVEY, A. M. | *Brown, G. L. and.* Neuro-muscular conduction in the fowl | 93, 285, 1938. |
| ,, | *Brown, G. L. and.* Reactions of avian muscle to acetylcholine and eserine | 94, 101, 1938. |
| ,, | The action of tetanus toxin on skeletal muscle | 95, 30P, 1939. |
| ,, | The actions of quinine on skeletal muscle | 95, 45, 1939. |
| ,, | *Brown, G. L. and.* Congenital myotonia in the goat | 96, 11P, 1939. |
| ,, | The peripheral action of tetanus toxin | 96, 348, 1939. |
| ,, | *Brown, G. L. and.* Effects of changes in dietary calcium on neuro-muscular transmission | 97, 330, 1940. |
| ,, | *and MacIntosh, F. C.* Calcium and synaptic transmission in a sympathetic ganglion | 97, 408, 1940. |
| ,, | *Brown, G. L. and.* Neuro-muscular transmission in the extrinsic muscles of the eye | 99, 379, 1941. |
| HARVEY, D. | *Magee, H. E. and.* The effect of insulin on the blood sugar of the pig | 64, xxxi, 1927. |
| HÄUSLER, H. | *Anrep, G. V. and.* The coronary circulation. I. The effect of changes of the blood-pressure and of the output of the heart | 65, 357, 1928. |
| ,, | *Anrep, G. V. and.* The coronary circulation. II. The effect of changes of temperature and of heart rate | 67, 299, 1929. |
| ,, | The coronary circulation. III. The dependence of changes in the coronary blood flow on cardiac and local vascular factors | 68, 324, 1929. |
| HAVARD, R. E. | *and Reay, G. A.* The influence of exercise on the inorganic phosphates of the blood and urine | 61, 35, 1926. |
| ,, | *and Reay, G. A.* The excretion of phosphate during water diuresis | 61, 1, 1926. |
| ,, | *Douglas, C. G. and.* The changes in the $CO_2$ pressure and hydrogen ion concentration of the arterial blood of man which are associated with hyperpnoea due to $CO_2$ | 74, 471, 1932. |
| ,, | *Dickinson, S., —— and Platt, B. S.* The measurement of the hydrogen ion concentration of blood by the glass electrode | 78, 28P, 1933. |
| ,, | Effect of exercise on the excretion of chloride in man | 90, 90P, 1937. |
| HAY, JANNET C. | *and Roaf, H. E.* The 'blue-green' region of the spectrum | 98, 389, 1940. |
| HAYASI, K. | *Adair, G. S., Barcroft, J., Barron, D. H., Goodman, E. N., Hall, E. H., ——, O'Brien, A., Pace, J. F. and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37P, 1936. |
| HAYNES, F. | (Introduced by H. Hartridge.) The nature of the pulmonary alveolar epithelium | 81, 7P, 1934. |
| HEARD, R. D. H. | *and Winton, S. S.* Use of the dietary anoestrus adult rat for the assay of the oestrus-inducing gonadotrophic substance | 96, 248, 1939. |
| HEATON, T. B. | *and MacKeith, M. H.* On the action of pilocarpine | 63, 42, 1927. |

| | | |
|---|---|---|
| HEBB, CATHERINE O. | The suppression by ergotoxine of bronchoconstriction produced by acetylcholine and by stimulation of the stellate ganglion in the guinea-pig | 96, 29P, 1939. |
| " | Bronchomotor responses to stimulation of the stellate ganglia and to injection of acetylcholine in isolated perfused guinea-pig lungs | 99, 57, 1940. |
| HECHT, S. | Intensity discrimination and its relation to the adaptation of the eye | 86, 15, 1936. |
| HELLAUER, H. | *Loewi, O. and.* The acetylcholine content of the nerves of warm-blooded animals | 93, 34P, 1938. |
| HELLER, H. | *and Holtz, P.* The significance of the pituitary in parturition | 74, 134, 1932. |
| " | *and Smirk, F. H.* Studies concerning the alimentary absorption of water and tissue hydration in relation to diuresis | 76, 1, 1932. |
| " | *and Smirk, F. H.* Studies concerning the alimentary absorption of water and tissue hydration in relation to diuresis | 76, 283, 1932. |
| " | *and Urban, F. F.* The fate of the antidiuretic principle of post-pituitary extracts *in vivo* and *in vitro* | 85, 502, 1935. |
| " | The state in the blood and the excretion by the kidney of the antidiuretic principle of posterior pituitary extracts | 89, 81, 1937. |
| " | The effect of the hydrogen-ion concentration on the stability of the antidiuretic and vasopressor activities of posterior pituitary extracts | 96, 337, 1939. |
| " | A simple apparatus for the determination of the specific gravity of small amounts of fluid | 98, 3P, 1940. |
| " | The action of the antidiuretic principle of posterior pituitary extracts on the urine excretion of anaesthetized animals | 98, 405, 1940. |
| " | The distribution of the pituitary antidiuretic hormone throughout the vertebrate series | 99, 246, 1941. |
| " | Differentiation of an (amphibian) water balance principle from the antidiuretic principle of the posterior pituitary gland | 100, 125, 1941. |
| HEMINGWAY, A. | *and McDowall, R. J. S.* On the survival of striped mammalian muscles | 61, VI, 1926. |
| " | The sensitising action of alkalies | 61, VIII, 1926. |
| " | The sensitising action of alkalies | 62, 81, 1926. |
| " | *and McDowall, R. J. S.* The chemical regulation of capillary tone | 62, 166, 1926. |
| " | *and Fee, A. R.* The relationship between the volume of the heart and its oxygen usage | 63, 299, 1927. |
| " | *Fee, A. R. and.* The oxygen usage of the kidney | 65, 100, 1928. |
| " | *and Peterson, J. M.* The anti-diuretic action of the separated principles of the posterior lobe of the pituitary body | 67, XXIV, 1929. |
| " | *and Peterson, J. M.* The anti-diuretic effect of the separated principles of the pituitary body | 68, 238, 1929. |

| | | |
|---|---|---|
| Hemingway, A. | A method for supplying low-tension current | 68, xvii, 1929. |
| ,, | Some observations on the perfusion of the isolated kidney by a pump | 71, 201, 1931. |
| ,, | A comparison of methods used for oxygenating blood in perfusion experiments | 72, 344, 1931. |
| ,, | The rate of glomerular filtration in the perfused kidney | 77, 13P, 1932. |
| ,, | A new perfusion pump | 77, 14P, 1932. |
| ,, | *and Sims, A. L.* A one screw-fixing boss head | 77, 15P, 1932. |
| ,, | *and Phelps, H. J.* The carbohydrate metabolism of the kidney | 80, 369, 1934. |
| ,, | The elimination of xylose, creatinine and urea by the perfused mammalian kidney | 84, 458, 1935. |
| ,, | The effect of $CO_2$ on the response of the renal vessels to histamine | 86, 13P, 1935. |
| ,, | Clearance ratios of sodium ferrocyanide, creatinine, inulin and xylose in the perfused kidney | 95, 3P, 1939. |
| Henderson, L. J. | *Bock, A. V., Dill, D. B., Edwards, H. T., —— and Talbott, J. H.* On the partial pressures of oxygen and carbon dioxide in arterial blood and alveolar air | 68, 277, 1929. |
| Henderson, N. | *Burns, C. M. and.* The salts of young bone | 82, 7P, 1934. |
| ,, | *Burns, C. M. and.* Bone composition in the new-born young of some species | 83, 46P, 1935. |
| Henderson, Yandell | Automatic sampling of alveolar air, particularly for measurement of the circulation with ethyl iodide vapour | 62, 262, 1927. |
| Herasymowycz, J. | Changes in clotting time during and after exercise in dogs | 82, 113, 1934. |
| Herkel, W. | *Barcroft, J., —— and Hill, S.* The rate of blood flow and gaseous metabolism of the uterus during pregnancy | 77, 194, 1933. |
| ,, | *Barcroft, J., Elliott, R. H. E., Fraser, F. R., ——, Matthews, B. H. C. and Talaat, M.* A case of deficient acclimatization to low oxygen pressure | 82, 369, 1934. |
| ,, | *Barcroft, J., Elliott, R. H. E., Flexner, L. B., Hall, F. G., ——, McCarthy, E. F., McClurkin, T. and Talaat, M.* Conditions of foetal respiration in the goat | 83, 192, 1934. |
| ,, | *Barcroft, J., Flexner, L. B., ——, McCarthy, E. F. and McClurkin, T.* The utilization of oxygen by the uterus in the rabbit | 83, 215, 1934. |
| Herman, F. G. | *and Winton, F. R.* The interaction of intrarenal and extrarenal pressures | 87, 77P, 1936. |
| Herring, P. T. | *and Hynd, A.* The action of glucosone upon different species of animals | 66, 267, 1928. |
| ,, | Histological evidence of secretion by the kidney tubules of the skate | 67, xlii, 1929. |
| Hershey, J. M. | *Best, C. H. and.* Further observations on the effects of some component of crude lecithine on depancreatized animals | 75, 49, 1932. |
| ,, | *Best, C. H., —— and Huntsman, M. Elinor.* The effect of lecithine on fat deposition in the liver of the normal rat | 75, 56, 1932. |

| | | |
|---|---|---|
| Hershey, J. M. | *Best, C. H., Ferguson, G. C. and.* Choline and liver fat in diabetic dogs | 79, 94, 1933. |
| Hertz, D. H. | *Creed, R. S. and.* The action of strychnine on Hering-Breuer reflexes | 78, 85, 1933. |
| Hetherington, Mary | The state of water in mammalian tissues | 73, 184, 1931. |
| Hewitt, J. A. | *Reeves, H. G. and.* The effect of glycerie aldehyde and dihydroxyacetone on insulin hypoglycaemia | 61, xxxv, 1926. |
| Hewitt, L. F. | *and Florey, H.* Effect of drugs on protein content of cerebro-spinal fluids of rabbits | 64, xxvii, 1927. |
| " | *Marrack, J. and.* The osmotic pressure of egg albumin | 66, v, 1928. |
| Heymans, C. | *and Bouckaert, J. J.* Sinus caroticus and respiratory reflexes. I. Cerebral blood flow and respiration. Adrenaline apnoea | 69, 254, 1930. |
| " | *and Bouckaert, J. J.* Sinus caroticus and respiratory reflexes. Cerebral blood flow and respiration. Adrenaline apnoea | 69, xiii, 1930. |
| " | *and Bouckaert, J. J.* Sinus caroticus reflexes upon venous pressure, liver volume and heart volume | 69, xxviii, 1930. |
| " | *Bouckaert, J. J., Dautrebande, L. and.* Sinus caroticus and respiratory reflexes. Influence of $CO_2$, hydrogen ion concentration and anoxaemia | 71, v, 1930. |
| " | Carotid sinus reflexes. Influence of central blood-pressure and blood supply on respiratory and vaso-motor centres | 79, 49, 1933. |
| " | *Bouckaert, J. J. and.* On the reflex regulation of the cerebral blood flow and the cerebral vaso-motor tone | 84, 367, 1935. |
| " | *Bouckaert, J. J., Elaut, L. and.* Vaso-motor carotid sinus reflexes in experimental hypertension produced by renal ischemia | 89, 3*P*, 1936. |
| " | *Bouckaert, J. J. and.* Some observations on the sympathectomized and vagotomized dog | 89, 4*P*, 1936. |
| " | *Bayless, F. and.* Pressoreceptor vaso-motor reflexes from the carotid sinus in conscious dogs and in animals under chloralosane or morphine-pernoctone anaesthesia | 90, 58*P*, 1937. |
| " | *Bouckaert, J. J. and.* The influence of barbiturates on the proprioceptive mechanisms of vaso-motor tone regulation | 90, 59*P*, 1937. |
| " | *Bouckaert, J. J., —— and Samaan, A.* The role of carotid sinus and vagal chemoreceptors in the respiratory and vasomotor effects of hypoxaemia in anaesthetized and normal dogs | 94, 4*P*, 1938 |
| " | *Bouckaert, J. J., Grimson, K. S. and.* The importance of carotid sinus and vago-sympathetic-aortic nerves in respiratory and circulatory responses of decerebrate cats to oxygen want | 95, 43*P*, 1939. |

| | | |
|---|---|---|
| Heymans, C. | *Bouckaert, J. J., Grimson, K. S. and.* Increase of blood pressure by perfusion of the ischaemic kidneys of hypertensive dogs | 96, 44P, 1939. |
| Hickman, H. R. B. | *Buckmaster, G. A. and.* The gases of urine and bile | 61, xvii, 1926. |
| „ | *Buckmaster, G. A. and.* The tension of oxygen in human urine | 65, xv, 1928. |
| Hickmans, E. M. | *Baar, H. S. and.* (Introduced by H. P. Gilding.) Alkali denaturation of oxyhaemoglobin, haemoglobin, carbonmonoxydhaemoglobin, methaemoglobin and cyanmethaemoglobin | 100, 3P, 1941. |
| „ | *Baar, H. S. and.* (Introduced by H. P. Gilding.) The bilirubinoid pigments of human faeces | 100, 4P, 1941. |
| Hicks, C. S. | On the innervation and secretory path of the thyroid gland | 62, 198, 1926. |
| Hill, A. V. | A note on the elasticity of skeletal muscles | 61, 494, 1926. |
| „ | Myothermic observations on the dogfish | 62, 156, 1926. |
| „ | *Gerard, R. W., —— and Zotterman, Y.* The effect of frequency of stimulation on the heat production of nerve | 63, 130, 1927. |
| „ | The analysis of galvanometer curves. (With an Appendix by W. Hartree) | 69, 81, 1930. |
| „ | *Fromherz, H. and.* The action of veratrine on frog's nerve | 77, 25P, 1932. |
| „ | The relation between the monophasic and the diphasic electrical response | 81, 1P, 1934. |
| „ | The efficiency of bicycle pedalling | 82, 207, 1934. |
| „ | Repetitive stimulation by commutator and condenser | 82, 423, 1934. |
| „ | *and Solandt, D. Y.* Myograms from the chromatophores of *Sepia* | 83, 13P, 1934. |
| „ | Electrotonic effects during high-frequency stimulation of nerve | 83, 14P, 1934. |
| „ | *and Parkinson, J. L.* On keeping frogs at a low temperature | 83, 16P, 1934. |
| „ | *Bugnard, L. and.* High-frequency stimulation of nerve and the refractory period | 83, 18P, 1934. |
| „ | *Bugnard, L. and.* Electric excitation of the fin nerve of *Sepia* | 83, 20P, 1934. |
| „ | The intensity-duration relation for nerve excitation | 83, 30P, 1934. |
| „ | *Bugnard, L. and.* The effect of frequency of excitation on the thermal response of medullated nerve | 83, 383, 1935. |
| „ | *Bugnard, L. and.* The effect of frequency of excitation on the total electric response of medullated nerve | 83, 394, 1935. |
| „ | *Bugnard, L. and.* A further analysis of the effects of high-frequency excitation of nerve | 83, 416, 1935. |
| „ | *Bugnard, L. and.* Electric excitation of the fin nerve of *Sepia* | 83, 425, 1935. |
| „ | *and Solandt, D. Y.* 'Accommodation' in nerve | 84, 1P, 1935. |

| | | |
|---|---|---|
| Hill, A. V. | *and Solandt, D. Y.* Nerve excitation by alternating current | 84, 2P, 1935. |
| " | Alternating current stimulation of nerve | 86, 47P, 1936. |
| " | A rapid galvanometer system for myothermic experiments | 92, 43P, 1938. |
| " | Energy liberation and 'viscosity' in muscle | 93, 4P, 1938. |
| " | *Downing, A. C., —— and Schmitt, O. H.* Recording pointer-galvanometer, with photoelectric coupling and thermionic amplification, for muscle heat measurement | 95, 62P, 1939. |
| Hill, D. K. | A simple differential volumetric method for obtaining the time-course of oxygen usage by stimulated frog's muscle | 96, 17P, 1939. |
| " | (Introduced by J. McMichael.) The photoelectric determination of blood CO | 98, 23P, 1940. |
| " | The time course of the oxygen consumption of stimulated frog's muscle | 98, 207, 1940. |
| " | The time course of evolution of oxidative recovery heat of frog's muscle | 98, 454, 1940. |
| " | Hydrogen-ion concentration changes in frog's muscle following activity | 98, 467, 1940. |
| Hill, I. G. W. | The effect of ligation of posterior coronary vessels on the electro-cardiogram in experimental bundle-branch block | 81, 70, 1934. |
| Hill, J. | *Briggs, G., Choyce, D. P., —— and Kerridge, Phyllis M. T.* The acuity of hearing of left- and right-handed children | 96, 48P, 1939. |
| Hill, L. | *and Azuma, Y.* Blood pressure in the two-three-day chick embryo | 62, xxvii, 1927. |
| " | Method of studying the ciliated epithelium of the wind-pipe | 64, iii, 1927. |
| " | Sphygmometry of the frog and distribution of blood pressure | 67, xi, 1929. |
| " | *McQueen, J. and.* Capillary circulation in the liver and spleen of the mouse | 67, xiii, 1929. |
| " | *Campbell, J. Argyll and.* Concerning the amount of nitrogen gas in the tissues and its removal by breathing almost pure oxygen | 71, 309, 1931. |
| " | Infra-red rays and ventilation | 74, 1P, 1931. |
| " | Infra-red rays and ventilation. II | 75, 8P, 1932. |
| " | *Campbell, J. Argyll and.* Rate of saturation of goat's tissues with excess gaseous nitrogen during exposure *in vivo* to increased atmospheric pressure | 75, 22P, 1932. |
| " | A simple method of measuring the air-way of the nose | 85, 19P, 1935. |
| " | Narrowing of the air tubes of the lung produced by close warm conditions | 87, 17P, 1936. |
| " | The effect on the lungs of breathing through a narrow orifice | 87, 45P, 1936. |
| " | *and Taylor, H. J.* The effect of the high-frequency field on the frog heart and muscle nerve preparation | 90, 33P, 1937. |
| " | *and Taylor, H. J.* Action of the galvanic current on the skin | 90, 93P, 1937. |

| | | |
|---|---|---|
| Hill, Margaret | *and Parkes, A. S.* Effects of anterior pituitary preparations on the anoestrous ferret | 69, xviii, 1930. |
| " | *and Parkes, A. S.* Ovulation induced in the hypophysectomized rabbit by anterior lobe extracts | 69, xxiii, 1930. |
| " | *and Parkes, A. S.* Studies on ovulation. IV. Induction of ovulation in the hypophysectomized rabbit by administration of anterior lobe extracts | 71, 36, 1931. |
| " | *and Parkes, A. S.* Studies on ovulation. V. The action of the ovulation-producing substance of urine of pregnancy on the hypophysectomized rabbit | 71, 40, 1931. |
| " | *and Parkes, A. S.* Effect of untreated urine of pregnancy on the hypophysectomized rabbit | 72, 15*P*, 1931. |
| " | Note on the effect of age on the response of immature mice to urine of pregnancy | 75, 44, 1932. |
| " | *and White, W. E.* The growth and regression of follicles in the oestrous rabbit | 80, 174, 1933. |
| " | *and Maycock, W. d'A.* The effects of stimulation of the cervical sympathetic nerve and the superior cervical sympathetic ganglion on the blood sugar | 95, 328, 1939. |
| Hill, R. | *and Holden, H. F.* The reaction between globin and haematin | 61, xxii, 1926. |
| Hill, R. Towner | , *Parkes, A. S. and White, W. E.* The assay of the ovulation-producing substance | 81, 335, 1934. |
| " | Variation in the activity of the rabbit hypophysis during the reproductive cycle | 83, 129, 1934. |
| " | Species variation in the gonadotropic activity of the hypophysis | 83, 137, 1934. |
| Hill, S. | *Barcroft, J., Herkel, W. and.* The rate of blood flow and gaseous metabolism of the uterus during pregnancy | 77, 194, 1933. |
| Hilton, R. | *Haldane, J. B. S., Linder, G. C., —— and Fraser, F. R.* The arterial blood in ammonium chloride acidosis | 65, 412, 1928. |
| " | A mouthpiece for collecting expired air in dyspnoea | 78, 5*P*, 1933. |
| Himsworth, H. P. | Dietetic factors influencing the glucose tolerance and the activity of insulin | 81, 29, 1934. |
| " | Exclusion of the liver in the rabbit | 91, 413, 1938. |
| " | *and Scott, D. B. McN.* The relation of the hypophysis to changes in sugar tolerance and insulin sensitivity induced by changes of diet | 91, 447, 1938. |
| " | *and Scott, D. B. McN.* The action of Young's glycotropic factor of the anterior pituitary gland | 92, 183, 1938. |
| " | *and Scott, D. B. McN.* The action of adrenaline in accelerating the removal of the blood sugar by the peripheral tissues | 93, 159, 1938. |
| Hirst, M. | *and Imrie, C. G.* The nitrogenous metabolism in post-encephalitic rigidity. (Preliminary communication) | 62, iv, 1926. |

| | | |
|---|---|---|
| HOAGLAND, H. | *Adrian, E. D., Cattell, McKeen and.* Sensory discharges in single cutaneous nerve fibres | 72, 377, 1931. |
| " | *Cattell, McKeen and.* Response of tactile receptors to intermittent stimulation | 72, 392, 1931. |
| HOBBS, L. S. | *, Hyder, R. I. and McDowall, R. J. S.* A class experiment to demonstrate the effect of load on the frog heart | 61, xix, 1926. |
| HOCKING, F. D. M. | *de Souza, D. and.* The hypercoagulability of the blood due to intramuscular injection of sodium citrate | 83, 49, 1934. |
| " | *de Souza, D. and.* Effects of sodium citrate on the alkali reserve and coagulability of the blood | 85, 168, 1935. |
| " | *de Souza, D. and.* Changes in the coagulability of the blood produced by citric acid and some of its decomposition products | 85, 173, 1935. |
| HODGKIN, A. L. | The nervous impulse as an electrical stimulus | 89, 11*P*, 1936. |
| " | Evidence for electrical transmission in nerve. Part I | 90, 183, 1937. |
| " | Evidence for electrical transmission in nerve. Part II | 90, 211, 1937. |
| " | A local electric response in crustacean nerve | 91, 5*P*, 1937. |
| " | The relation between conduction velocity and the electrical resistance outside a nerve fibre | 94, 560, 1939. |
| HODGSON, T. H. | *Benham, G. H., Duke-Elder, W. S. and.* The osmotic pressure of the aqueous humour in the normal and glaucomatous eye | 92, 355, 1938. |
| " | The chloride content of blood serum and aqueous humour. Its relation to glaucoma and to the formation of intra-ocular fluid | 94, 118, 1938. |
| HOET, J. | *and Ernould, H.* On the nervous control of insulin secretion | 70, 1, 1930. |
| HOFF, E. C. | Degeneration of the *boutons terminaux* in the spinal cord | 74, 4*P*, 1931. |
| " | *, Hoff, H. E. and Sheehan, D.* Reflex interruptions of rhythmic discharge | 83, 185, 1934. |
| HOFF, H. E. | *Eccles, J. C. and.* Rhythmic responses of motoneurones | 71, xxi, 1931. |
| " | *Eccles, J. C. and.* Stimulation of the pacemaker of the mammalian heart | 72, 31*P*, 1931. |
| " | *Brown, G. L., Eccles, J. C. and.* The action of the vagus on the rhythm of the mammalian heart | 76, 9*P*, 1932. |
| " | *Hoff, E. C., —— and Sheehan, D.* Reflex interruptions of rhythmic discharge | 83, 185, 1934. |
| HOGG, B. M. | Slow impulses from the cutaneous nerves of the frog | 84, 250, 1935. |
| HOLDEN, H. F. | *Hill, R. and.* The reaction between globin and haematin | 61, xxii, 1926. |
| " | *Feldberg, W., —— and Kellaway, C. H.* The formation of lysocithin and of a muscle-stimulating substance by snake venoms | 94, 232, 1938. |
| HOLMBERG, T. | *Granit, R., —— and Zewi, M.* On the mode of action of visual purple on the rod cell | 94, 430, 1938. |

| | | |
|---|---|---|
| Holmes, B. | *Feldberg, W. and.* The effect of muscular contractions and of curarine on acid gastric secretion in cats | 99, 3P, 1941. |
| Holmes, E. | On the alleged occurrence of 'Krampfstoffe' in acetone extracts of mammalian brain | 85, 400, 1935. |
| Holtz, P. | *Heller, H. and.* The significance of the pituitary in parturition | 74, 134, 1932. |
| ,, | The action of pituitary posterior lobe extracts on different parts of the circulatory system | 76, 149, 1932. |
| ,, | *Gaddum, J. H. and.* The localization of the action of drugs on the pulmonary vessels of dogs and cats | 77, 139, 1933. |
| Honeyburne, W. R. | *Woolham, J. G. and.* On the correlation between pulse and respiratory tests of schoolboys | 65, vi, 1928. |
| Honeyman, W. M. | *Carmichael, E. A., ——, Kolb, L. C. and Stewart, W. K.* A physiological study of the skin resistance response in man | 99, 329, 1941. |
| ,, | *Carmichael, E. A., ——, Kolb, L. C. and Stewart, W. K.* Peripheral conduction rate in the sympathetic nervous system of man | 99, 338, 1941. |
| Horne, E. A. | *Bell, D. J., —— and Magee, H. E.* The decerebrate rat | 78, 196, 1933. |
| ,, | *and Magee, H. E.* Glycogen synthesis in the small intestine | 78, 288, 1933. |
| ,, | , *McDougall, E. J., and Magee, H. E.* Influence of the autonomic nerves on alimentary hyperglycaemia and on the absorption of glucose | 80, 48, 1933. |
| Horton, H. V. | *Dulière, W. L. and.* The reversible loss of excitability in isolated amphibian voluntary muscle | 67, 152, 1929. |
| ,, | The reversible loss of excitability in isolated amphibian voluntary muscle. II. A comparison of the inexcitable condition obtained by different methods. Chronaxie and potassium diffusion | 70, 389, 1930. |
| Houssay, B. A. | *Biasotti, A. and.* Phlorrhizin diabetes in fasting or fed hypophysectomized dogs | 77, 81, 1932. |
| ,, | *Fasciolo, J. C., —— and Taquini, A. C.* The blood-pressure raising secretion of the ischaemic kidney | 94, 281, 1938. |
| Hoyle, J. C. | *Dixon, W. E. and.* Studies in the pulmonary circulation. I. The vaso-motor supply | 65, 299, 1928. |
| ,, | *Dixon, W. E. and.* Studies in the pulmonary circulation. II. The action of adrenaline and nicotine | 67, 77, 1929. |
| ,, | *Dixon, W. E. and.* Studies in the pulmonary circulation. III. The action of histamine | 70, 1, 1930. |
| Hsü, C. H. | *Chang, H. C., Chia, K. F., —— and Lim, R. K. S.* Reflex secretion of the posterior pituitary elicited through the vagus | 90, 87P, 1937. |
| Hsu, Fong-Yen | *Evans, C. Lovatt, —— and Kosaka, T.* Glycolytic formation of blood lactate | 80, 19P, 1933. |

| | | |
|---|---|---|
| Hsu, Fong-Yen | *Bowie, C. Lovatt, —— and Koeshu, T.* Utilization of blood sugar and formation of lactic acid by the lungs | 82, 41, 1934. |
| " | Factors affecting blood glycolysis *in vitro* and *in vivo* | 84, 173, 1935. |
| " | *Grande, F. and.* The distribution of blood sugar | 84, 29*P*, 1935. |
| " | *Bogue, J. Yule, Evans, C. Lovatt and.* The significance of lactic acid uptake by the mammalian heart | 84, 55*P*, 1935. |
| Huggett, A. St G. | *Mellanby J. and.* The relation of secretin formation to the entrance of acid chyme into the small intestine—the properties of secretin | 61, 122, 1926. |
| " | Factors influencing the foetal respiratory centre | 61, xxx, 1926. |
| " | Foetal blood-gas tensions and gas transfusion through the placenta of the goat | 62, 373, 1927. |
| " | The placental glycogen | 66, xi, 1928. |
| " | Maternal control of the placental glycogen | 67, 360, 1929. |
| " | Foetal respiratory reflexes | 69, 144, 1930. |
| " | Measurement of the area of the placental membrane | 72, 20*P*, 1931. |
| " | *and Silman, H.* The anticoagulant action of chlorazol | 74, 9*P*, 1932. |
| " | *and Rowe, F. M.* Azo-dyes as anti-coagulants | 78, 25*P*, 1933. |
| " | *and Rowe, F. M.* The relationship of azo-dyes to the coagulation of blood | 80, 82, 1933. |
| " | *Davy, Anna and.* The autolysis of the placental glycogen | 81, 183, 1934. |
| " | The effect of azo-dyes on the coagulating enzymes of the blood | 82, 21*P*, 1934. |
| " | *and Rowe, F. M.* The effect of salts upon the anticoagulant action of azo-dyes *in vivo* | 82, 24*P*, 1934. |
| " | *Elliott, R. H., Hall, F. G. and.* The blood volume and oxygen capacity of the foetal blood in the goat | 82, 160, 1934. |
| Hughes, J. Howell | *and Latner, A. L.* Chlorophyll and haemoglobin regeneration after haemorrhage | 86, 388, 1936. |
| " | *and Latner, A. L.* Ætioporphyrin and haemoglobin regeneration after haemorrhage | 89, 403, 1937. |
| Hughes, T. A. | *Maclean, H., Griffiths, W. J. and.* The relationship of peptic activity to neutral chloride secretion during gastric digestion in man | 67, 409, 1929. |
| Hukuda, K. | The energy liberated in total exhaustion of frog's muscle | 72, 438, 1931. |
| Huntsman, M. Elinor | *Best, C. H., Hershey, J. M. and.* The effect of lecithine on fat deposition in the liver of the normal rat | 75, 56, 1932. |
| " | *Best, C. H. and.* The effects of the components of lecithine upon deposition of fat in the liver | 75, 405, 1932. |
| " | *Best, C. H. and.* The effect of choline on the liver fat of rats in various states of nutrition | 83, 255, 1935. |
| " | *Best, C. H., ——, McHenry, E. W. and Ridout, Jessie H.* The effects of diets low in choline | 84, 38*P*, 1935. |

| | | |
|---|---|---|
| Huntsman, M. Elinor | *Best, C. H., —— and Young, F. G.* The effect of diets low in choline, and of choline feeding, on the glycosuria of the depancreatised dog | 85, 8P, 1933. |
| Hurst, A. F. | *and Knott, F. A.* Starch digestion in man | 70, xxxvii, 1930. |
| Hurst, R. H. | *Cook, L. C. and.* Blood lactic acid in man during rest | 79, 443, 1933. |
| Huxtheal, L. M. | *Bock, A. V., Vancaulaert, C., Dill, D. B., Folling, A. and.* Studies in muscular activity. III. Dynamical changes occurring in man at work | 66, 136, 1928. |
| " | *Bock, A. V., Vancaulaert, C., Dill, D. B., Folling, A. and.* Studies in muscular activity. IV. The 'steady state' and the respiratory quotient during work | 66, 162, 1928. |
| Huszák, St | *Annau, E., ——, Svirbely, J. L. and Szent-Györgyi, A.* The function of the adrenal medulla | 76, 181, 1932. |
| Huxley, J. S. | *Bilsbrddek, J. and.* Changes in oxygen consumption during metamorphosis induced by thyroid administration in the axolotl | 64, 267, 1927. |
| Hyder, R. I. | *Hobbs, L. S., —— and McDowall, R. J. S.* A class experiment to demonstrate the effect of load on the frog heart | 61, xix, 1926. |
| Hynd, A. | *Herring, P. T. and.* The action of glucosone upon different species of animals | 66, 267, 1928. |
| " | On the physiological action of glyoxals | 70, ix, 1930. |
| Illingworth, R. E. | , *Marshall, P. G. and Robson, J. M.* The sensitization of the guinea-pig's uterus to pituitrin | 75, 35P, 1932. |
| " | *and Robson, J. M.* Factors influencing the actions of corpus luteum extracts on the rabbit's uterus | 76, 137, 1932. |
| Imrie, C. G. | *Tingle, C. D. and.* The effect of pituitrin on blood sugar | 62, ii, 1926. |
| " | *Hirst, M. and.* The nitrogenous metabolism in post-encephalitic rigidity. (Preliminary communication) | 62, iv, 1926. |
| " | The action of extract of pituitary on the blood sugar after pancreatectomy | 67, 264, 1929. |
| " | *Brown, Marion and.* On the creatine and phosphorus content of muscle | 71, 214, 1931. |
| " | *Brown, Marion and.* The influence of creatine on the excretion of phosphates by the kidney | 71, 222, 1931. |
| " | *Brown, Marion and.* The influence of the parathyroid on the metabolism of creatine phosphoric acid. Part I. Phosphate excretion after injections of creatine and parathormone | 75, 366, 1932. |
| " | *and Jenkinson, Constance N.* Part II. Regulation of creatine phosphate after thyro-parathyroidectomy, etc. | 75, 373, 1932. |
| " | , *and Jenkinson, Constance N.* The influence of the parathyroid on the metabolism of creatine and phosphoric acid | 79, 218, 1933. |

| | | |
|---|---|---|
| Inchley, O. | Histamine shock | 61, 282, 1926. |
| " | Drop recorder | 65, vi, 1928. |
| Ing, H. R. | *Cowan, S. L. and.* The effect of quaternary ammonium salts upon nerve. (Preliminary communication) | 79, 75, 1933. |
| " | *Cowan, S. L. and.* The curariform activities of strychnine metho-salts and curarine chloride | 82, 432, 1934. |
| " | *Cowan, S. L. and.* Quaternary ammonium salts and the action currents in nerve | 84, 90, 1935. |
| " | *Code, C. F. and.* The isolation of histamine from the white cell layer of centrifuged rabbit blood | 90, 501, 1937. |
| Ingraham, F. D. | *Fulton, J. F. and.* Emotional disturbances following experimental lesions of the base of the brain (pre-chiasmal) | 67, xxvii, 1929. |
| Innes, J. R. M. | *and Bellerby, C. W.* Spontaneous deciduomata in the rat | 67, xxxiv, 1929. |
| Ireland, J. T. | *Harris, I., —— and James, G. V.* The effect of the level of inorganic bases in blood on the catabolism of food protein | 99, 370, 1941. |
| Irving, J. T. | *and Kay, H. D.* The *in vivo* permeability of the red corpuscles of the rabbit | 61, 113, 1926. |
| " | The influence of iodoacetic acid on the blood sugar level | 75, 4*P*, 1932. |
| " | The effect of insulin and other factors on iodo-acetate hyperglycaemia | 80, 360, 1934. |
| " | *Bain, W. A., —— and McSwiney, B. A.* Visceral afferent fibres | 83, 8*P*, 1934. |
| " | *Bain, W. A., —— and McSwiney, B. A.* Visceral afferent fibres | 83, 28*P*, 1934. |
| " | *Bain, W. A., —— and McSwiney, B. A.* The afferent fibres from the abdomen in the splanchnic nerves | 84, 323, 1935. |
| " | *and McSwiney, B. A.* Afferent fibres from the pylorus and upper duodenum | 85, 4*P*, 1935. |
| " | *and Richards, M. B.* The early lesions of vitamin A deficiency | 89, 2*P*, 1936. |
| " | *, McSwiney, B. A. and Suffolk, S. F.* Afferent fibres from the stomach and small intestine | 89, 407, 1937. |
| " | *and Richards, M. B.* Early lesions of vitamin A deficiency | 94, 307, 1938. |
| " | *Gaunt, W. E. and.* Influence of Ca and P intake on tooth formation | 95, 51*P*, 1939. |
| " | *and Simpson, B. W.* The influence of low iodine diets on the thyroid gland of rats | 95, 52*P*, 1939. |
| " | *Griffiths, H. D., —— and Mason, E. M.* The influence of ingested radioactive materials upon the thyroid gland of rats | 95, 516, 1939. |
| " | The influence of diets low in magnesium upon the histological appearance of the incisor tooth of the rat | 99, 8, 1940. |
| " | *Gaunt, W. E. and.* The influence of dietary calcium and phosphorus upon tooth formation | 99, 18, 1940. |
| " | *Gaunt, W. E., Griffith, H. D. and.* The assimilation of radio-active phosphorus following phosphorus deficiency in rats | 100, 372, 1942. |

| | | |
|---|---|---|
| Irving, Laurence | *Ferguson, J. K. W.*, —— *and Plewes, F. B.* The source of expired $CO_2$ in decapitated, aviscerated cats | 68, 265, 1929. |
| ,, | *Ferguson, J. K. W. and Plewes, F. B.* The source of $CO_2$ expired and the site of its retention | 69, 113, 1930. |
| ,, | *Solandt, D. Y. and Solandt, O. M.* Nerve impulses from branchial pressure receptors in the dogfish | 84, 187, 1935. |
| Israëls, M. C. G. | *and Lamb, F. W.* The determination of the carbon dioxide content of the mixed venous blood. Part I. The effect of oxygenation and the critical oxygen tension | 67, 49, 1929. |
| ,, | *and Lamb, F. W.* The determination of the carbon dioxide content of the mixed venous blood. Part II. Carbon dioxide equilibria between mixed venous blood and re-breathed airs | 67, 315, 1929. |
| ,, | *Brunton, C. E. and.* Interrelations of respiration and gastric secretion | 70, 184, 1930. |
| ,, | *Brunton, C. E. and.* Stethographic method to ensure that alveolar air samples are taken in the correct phase of respiration | 78, 11P, 1933. |
| Ivanitzky-Vassilenko, E. S. | The effect of the injection of blood on the urea in blood and urine | 75, 190, 1932. |
| Izquierdo, J. J. | The influence of excision and treatment with saline on the pace-maker of the frog's heart | 68, 363, 1930. |
| ,, | On the influence of the extra-cardiac nerves upon sino-auricular conduction in the heart of *Scyllium* | 69, 29, 1930. |
| ,, | A modification of the decerebrate preparation for making it suitable for the study of the carotid sinus reflexes | 70, xvii, 1930. |
| ,, | Influence of the aortic and carotid sinus nerves upon the height and form of the rise of blood-pressure produced by peripheral stimulation of the splanchnic nerve | 70, 221, 1930. |
| ,, | *Barcroft, J. and.* The relation of temperature to the pulse rate of the frog | 71, 145, 1931. |
| ,, | *Barcroft, J. and.* The effect of temperature on the frequency of heart and respiration in the guinea-pig and cat | 71, 364, 1931. |
| Jacoby, F. | The rate of cell-division of hen 'monocytes' *in vitro* | 90, 23P, 1937. |
| ,, | Cannibalism and chemotaxis in the hen 'monocytes' *in vitro* | 91, 22P, 1937. |
| ,, | On the identity of blood monocytes and tissue macrophages; their growth rates *in vitro* | 93, 48P, 1938. |
| ,, | Synchronous mitoses in a binucleate macrophage *in vitro* | 98, 6P, 1940. |
| ,, | Speeding-up of cell divisions of macrophages *in vitro* | 100, 2P, 1941. |
| James, G. V. | *Harris, I., Ireland, J. T. and.* The effect of the level of inorganic bases in blood on the catabolism of food protein | 99, 370, 1941. |

| | | |
|---|---|---|
| JANG, CHANG-SHAW | *Goddum, J. H.*, —— and *Kwiatkowski, H.* The effect on the intestine of the substance liberated by adrenergic nerves in a rabbit's ear | 96, 104, 1939. |
| " | Ions and adrenergic transmission in the rabbit's ear | 99, 119, 1940. |
| JANKER, R. | *Franklin, K. J. and.* Effects of respiration upon the venae cavae of certain mammals, as studied by means of X-ray cinematography | 81, 434, 1934. |
| " | *Franklin, K. J. and.* Respiration and the venae cavae—further X-ray cinematographic studies | 86, 264, 1936. |
| " | *Franklin, K. J. and.* The effects of respiration upon the circulation through the liver, as studied by means of X-ray cinematography | 89, 160, 1937. |
| " | *Franklin, K. J. and.* Coughing studied by means of X-ray cinematography | 92, 467, 1938. |
| JAQUES, L. B. | *and Waters, E. T.* The identity and origin of the anticoagulant of anaphylactic shock in the dog | 99, 454, 1941. |
| " | A quantitative method of assay for thrombin and prothrombin | 100, 275, 1941. |
| JARISCH, A. | *and Wastl, H.* Observations on the effect of anoxaemia upon heart and circulation | 61, 583, 1926. |
| JENKINSON, CONSTANCE N. | *Imrie, C. G. and.* Part II. Regulation of creatine phosphate after thyroparathyroidectomy, etc. | 75, 373, 1932. |
| " | *Imrie, C. G. and.* The influence of the parathyroid on the metabolism of creatine and phosphoric acid | 79, 218, 1933. |
| JENNINGS, M. A. | *Wright, R. D.*, ——, *Florey, H. W. and Lium, R.* Observations on intestinal secretion | 96, 13*P*, 1939. |
| JOHN, R. | An improved electrically-heated operating board for small animals | 99, 157, 1941. |
| JOHNSON, C. H. | The lethal effects of ultrasonic radiation | 67, 356, 1929. |
| JONES, A. MORGAN | *and Schlapp, W.* The action and fate of injected posterior pituitary extracts in the decapitated cat | 87, 144, 1936. |
| JONES, E. I. | *Greenfield, A. D. M. and.* (Introduced by A. St G. Huggett.) Price-Jones curves from a case of polycythaemia rubra vera, before, during, and after treatment with phenylhydrazine | 99, 2*P*, 1941. |
| JONES, OLWEN M. | *Sharby, J. H. and.* On the colorimetric determination of hydrogen-ion concentration | 61, xxvi, 1926. |
| JONES, R. N. | The influence of fluoride and sulphite ions on the aerobic synthesis of glycogen from lactic acid in a resting frog's muscle | 83, 33*P*, 1934. |
| " | The physiological behaviour of frog's muscle in the presence of fluoride and sulphite | 83, 47*P*, 1935. |
| JONGBLOED, J. | Spectrophotometer investigation into the differences between foetal and maternal haemoglobin in man | 92, 228, 1938. |

| | | |
|---|---|---|
| Jonxis, J. H. P. | *Brinkman, R. and.* The occurrence of several kinds of haemoglobin in human blood | 85, 117, 1935. |
| ,, | *Brinkman, R. and.* Alkaline resistance and spreading velocity of foetal and adult types of mammalian haemoglobin | 88, 162, 1936. |
| Jowett, M. | The action of narcotics on brain respiration | 92, 322, 1938. |
| Kahlson, G. | *and MacIntosh, F. C.* Acetylcholine synthesis in a sympathetic ganglion | 96, 277, 1939. |
| Kahn, J. L. | *Blaschko, H., Cattell, McKeen and.* On the nature of the two types of response in the neuromuscular system of the crustacean claw | 73, 25, 1931. |
| Kamada, T. | The supernormal phase in muscular contraction | 76, 187, 1932. |
| Kane, F. | *Conway, E. J. and.* The equation expressing the excretion of a diuretic and its relation to diffusion processes | 61, 595, 1926. |
| ,, | *and O'Connor, J. M.* The relation between the *p*H of the blood and the law of isodynamic equivalence | 88, 1*P*, 1936. |
| ,, | *and O'Connor, J. M.* The influence of the reaction of blood plasma on oxygen consumption in relation to the law of isodynamic equivalence | 91, 48, 1937. |
| ,, | *Boyle, P. J., Conway, E. J., —— and O'Reilly, H. L.* Volume of interfibre spaces in frog muscle and the calculation of concentrations in the fibre water | 99, 401, 1941. |
| Karady, S. | *Browne, J. S. L., —— and Selye, H.* The effect of noxious agents on creatine, creatinine, chloride and water excretion | 97, 1, 1939. |
| Kato, G. | *and Teruuchi, D.* Is there 'transitional decrement' in narcotised nerve? | 64, 193, 1927. |
| Katz, B. | *Bouckuert, J. P. and.* The effect of inter-electrode distance on the time constant of electric excitation of nerve | 85, 10*P*, 1935. |
| ,, | Curarization in the neuro-muscular system of crabs | 86, 14*P*, 1935. |
| ,, | The response of medullated nerve to alternating high-frequency stimulation | 86, 285, 1936. |
| ,, | (Introduced by A. V. Hill.) Neuromuscular transmission in crabs | 86, 45*P*, 1936. |
| ,, | The time-factor of accommodation and repetitive response in the nerves of cooled frogs | 87, 23*P*, 1936. |
| ,, | Neuro-muscular transmission in crabs | 87, 199, 1936. |
| ,, | Multiple response to constant current in frog's medullated nerve | 88, 239, 1936. |
| ,, | The time course of the excitatory disturbance in nerve following a short shock | 90, 6*P*, 1937. |
| ,, | The reversal of neuro-muscular block by catelectrotonus | 92, 20*P*, 1938. |
| ,, | Transient relaxation of active muscle caused by quick loading | 95, 63*P*, 1939. |

| | | |
|---|---|---|
| KATZ, B. | The 'anti-curare' action of a subthreshold catelectrotonus | 95, 286, 1939. |
| " | The relation between force and speed in muscular contraction | 96, 45, 1939. |
| " | *and Schmitt, O. H.* Excitability changes in a nerve fibre during the passage of an impulse in an adjacent fibre | 96, 9P, 1939. |
| " | Nerve excitation by high-frequency alternating current | 96, 202, 1939. |
| " | *and Schmitt, O. H.* Electric interaction between two adjacent nerve fibres | 97, 471, 1940. |
| " | *and Schmitt, O. H.* A note on interaction between nerve fibres | 100, 369, 1942. |
| KATZ, L. N. | *and Mendlowitz, M.* The isolated heart circuit | 92, 2P, 1938. |
| KAY, H. D. | *Irving, J. T. and.* The *in vivo* permeability of the red corpuscles of the rabbit | 61, 113, 1926. |
| " | *Aitken, R. S. and.* An easily constructed ultra-filter | 62, xxix, 1927. |
| " | A simple colorimeter lamp | 62, xxxi, 1927. |
| " | The distribution of phosphorus compounds in the blood of certain mammals | 65, 374, 1928. |
| " | Class experiments on enzymic synthesis | 66, xv, 1928. |
| " | *Taylor, N. B., Branion, H. D. and.* Some effects of the administration of excessive doses of irradiated ergosterol to normal and to parathyroidectomized dogs | 69, xxxv, 1930. |
| KAY, W. W. | *Dunn, J. S., —— and Sheehan, H. L.* The elimination of urea by the mammalian kidney | 73, 371, 1931. |
| " | *and Sheehan, H. L.* The renal elimination of injected urea and creatinine | 79, 359, 1933. |
| KEELE, C. A. | *Floyd, W. F. and.* Further observations on changes of potential and E.M.F. recorded from the human skin | 86, 23P, 1936. |
| " | *Floyd, W. F. and.* Electrolytic phenomena in electrodes used for physiological purposes | 86, 25P, 1936. |
| " | *Floyd, W. F. and.* Action of adrenaline on the electromyogram in decerebrate rigidity | 87, 93P, 1936. |
| KELLAWAY, C. H. | *Feldberg, W. and.* Liberation of histamine from the perfused lung by snake venoms | 90, 257, 1937. |
| " | *Feldberg, W. and.* Liberation of histamine from the perfused lung of the guinea-pig by bee venom | 91, 2P, 1937. |
| " | *Feldberg, W. and.* Liberation of histamine and formation of lysocithin-like substances by cobra venom | 94, 187, 1938. |
| " | *Feldberg, W., Holden, H. F. and.* The formation of lysocithin and of a muscle-stimulating substance by snake venoms | 94, 232, 1938. |
| KENNAWAY, E. L. | *King, Lorna, —— and Piney, A.* A note on the action of insulin in normal persons | 66, 400, 1928. |
| KENNEDY, HELEN S. | *Andersen, Dorothy H. and.* Studies on the physiology of reproduction. IV. Changes in the adrenal gland of the female rat associated with the oestrous cycle | 76, 247, 1932. |

KENNEDY, HELEN S. *Andersen, Dorothy H. and.* Studies on the physiology of reproduction. V. The adrenal cortex in pregnancy and lactation 77, 159, 1933.

" *Andersen, Dorothy H. and.* The effect of gonadectomy on the adrenal, thyroid and pituitary glands 79, 1, 1933.

KENNEDY, J. A. *Barcroft, J., —— and Mason, M. F.* The relation of the vagus nerve to the ductus arteriosus in the guinea-pig 92, 1P, 1938.

" *Mason, M. F., —— and Barcroft, J.* Direct determination of foetal oxygen consumption 93, 21P, 1938.

" *and Millikan, G. A.* A blood-volume method using a blue dye and photocell 93, 27P, 1938.

" *Millikan, G. A.* A micro blood volume method using a blue dye and photocell 93, 276, 1938.

" *Barcroft, J., —— and Mason, M. F.* The blood volume and kindred properties in pregnant sheep 95, 159, 1939.

" *Barcroft, J. and.* The distribution of blood between the foetus and the placenta in sheep 95, 173, 1939.

" *Barcroft, J., —— and Mason, M. F.* The direct determination of the oxygen consumption of the foetal sheep 95, 269, 1939.

" *Barcroft, J., —— and Mason, M. F.* Oxygen in the blood of the umbilical vessels of the sheep 97, 347, 1940.

KENNEDY, W. P. *and Mackay, I.* The normal leucocyte picture in a hot climate 87, 336, 1936.

KENT, A. F. S. Microscopical specimens of the heart 81, 2P, 1934.

KEOGH, E. V. *Feldberg, W. and.* Liberation of histamine from the perfused lung by staphylococcal toxin 90, 280, 1937.

KERGIN, F. G. *Douglas, C. G., Greene, C. R. and.* The influence of ammonium chloride on adaptation to low barometric pressures 78, 404, 1933.

KERLY, MARGARET *and Reid, C.* The relation of the spleen to formation of glycogen in the liver. With a note on the rate of absorption of glucose and lactic acid 84, 302, 1935.

" *Glaister, Deborah and.* The oxygen consumption and carbohydrate metabolism of the retractor muscle of the foot of *Mytilus edulis* 87, 56, 1936.

KERRIDGE, PHYLLIS TOOKEY *Bayliss, L. E., —— and Verney, Ruth Conway.* The determination of the hydrogen-ion concentration of the blood 61, 448, 1926.

" The buffering power of the blood of *Maia squinado* 62, 65, 1926.

" *Furusawa, K. and.* The hydrogen ion concentration of the muscles of the cat 63, 33, 1927.

" *and Winton, F. R.* The hydrogen ion concentration of the isolated uterus 67, 66, 1929.

" *Baylis, L. E., —— and Russell, Dorothy S.* The excretion of protein by the mammalian kidney 77, 386, 1933.

" The effect of hearing on speech 87, 2P, 1936.

| | | |
|---|---|---|
| Kerridge, Phyllis Tookey | *Greenbaum, A., —— and Ross, E. J.* Normal hearing by bone conduction | 94, 14*P*, 1938. |
| ,, | , *Paul, R. W., Reynolds, R. J., Reynolds, S. J. and Reynolds, S. R.* Cinéradiographic films illustrating normal respiration and artificial respiration with the Bragg-Paul Pulsator | 95, 63*P*, 1939. |
| ,, | , *Briggs, G., Choyce, D. P., Hill, J. and.* The acuity of hearing of left- and right-handed children | 96, 48*P*, 1939. |
| Kestner, O. | (Introduced by E. W. Cruickshank.) Metabolism and size of organs | 87, 39*P*, 1936. |
| ,, | Antibodies organ-specific against the thyroid gland | 90, 18*P*, 1937. |
| ,, | Antibodies organ-specific against the anterior body of the pituitary gland | 92, 273, 1938. |
| Kettenmeyer, G. | *and La Barre, J.* The effect of paralysis of the thalamic centres on adrenaline secretion | 90, 57*P*, 1937. |
| Keys, A. | *Bateman, J. B. and.* Chloride and vapour-pressure relations in the secretory activity of the gills of the eel | 75, 226, 1932. |
| ,, | *and Willmer, E. N.* 'Chloride-secreting cells' in the gills of fishes, with special reference to the common eel | 76, 368, 1932. |
| ,, | *Bateman, J. B. and.* Respiration of isolated gill tissue of the eel | 77, 271, 1933. |
| ,, | The carbon dioxide balance between the maternal and foetal bloods in the goat | 80, 491, 1934. |
| ,, | *Adair, G. S. and.* A micro method for the determination of base by electrodialysis | 81, 162, 1934. |
| Khanna, L. C. | *Barcroft, J., —— and Nisimaru, Y.* Rhythmical contraction of the spleen | 74, 294, 1932. |
| Khayyal, M. A. | *and Scott, C. M.* The oxygen consumption of the isolated uterus of the rat and mouse | 72, 13*P*, 1931. |
| ,, | *Barsoum, G., Gaddum, J. H. and.* The liberation of a choline ester in the inferior mesenteric ganglion | 82, 9*P*, 1934. |
| ,, | *Gaddum, J. H., —— and Rydin, H.* The release of pharmacologically active substances by nerve trunks during electrical stimulation | 89, 9*P*, 1936. |
| Kidston, M. H. | *and Waterson, D.* Nerves of the epidermis | 75, 25*P*, 1932. |
| Kilborn, L. G. | The respiratory quotient after evisceration in cats | 66, 403, 1928. |
| Killick, Esther M. | *Mellanby, May and.* Calcification in rabbits | 61, xxiii, 1926. |
| ,, | Development of acclimatization to carbon monoxide in the human subject | 83, 35*P*, 1934. |
| ,, | Resistance to inspiration—its effects on respiration in man | 84, 162, 1935. |
| ,, | The acclimatization of the human subject to atmospheres containing low concentrations of carbon monoxide | 87, 41, 1936. |
| ,, | The acclimatization of mice to atmospheres containing low concentrations of carbon monoxide | 91, 279, 1937. |

| | | |
|---|---|---|
| King, B. | *Anrep, G. V. and.* The significance of the diastolic and systolic blood-pressures for the maintenance of the coronary circulation | 64, 341, 1928. |
| King, J. D. | Dietary deficiency, nerve lesions and the dental tissues | 88, 62, 1936. |
| " | , *Lewinsky, W. and Stewart, D.* Degenerative changes in the axis cylinders of the dental nerves, due to diets deficient in vitamin A and carotene | 93, 206, 1938. |
| King, Lorna | , *Kennaway, E. L. and Piney, A.* A note on the action of insulin in normal persons | 66, 400, 1928. |
| Kinosita, R. | *Hammouda, M. and.* The coronary circulation in the isolated heart | 61, 615, 1926. |
| Kinnersley, H. W. | *and Peters, R. A.* A localized lactic acidosis in the brains of pigeons suffering from $B_1$ deficiency | 69, xi, 1930. |
| " | , *O'Brien, J. R. and Peters, R. A.* Crystalline preparations of vitamin $B_1$ from baker's yeast | 76, 17*P*, 1932. |
| Kirkman, N. F. | The effect of low-porphyrin diet on erythropoiesis and haemoglobin regeneration | 95, 508, 1939. |
| Klisiecki, A. | , *Pickford, Mary, Rothschild, P. and Verney, E. B.* Functional division of the splanchnic nerve under local anaesthesia in the dog, and the secretion of urine | 72, 26*P*, 1931. |
| Knaus, H. H. | The action of pituitary extract upon the pregnant uterus of the rabbit | 61, 383, 1926. |
| Knight, B. C. J. G. | *and Fildes, P.* An essential growth factor for the anaerobe *B. sporogenes* | 78, 6*P*, 1933. |
| Knight, G. C. | (Introduced by H. Hartridge.) The innervation of the oesophagus and cardiac sphincter | 81, 6*P*, 1934. |
| " | The effects of sympathetic stimulation upon the striped muscle of the oesophagus | 82, 3*P*, 1934. |
| Knott, F. A. | *and Oriel, G. H.* Detection of histamine-like substances in asthmatic sputa and experiments on their possible bacteriological origin | 70, xxxi, 1930. |
| " | *Hurst, A. F. and.* Starch digestion in man | 70, xxxvii, 1930. |
| Knox, J. A. C. | *Bell, G. H. and.* Recording of pulse rate during exercise | 93, 36*P*, 1938. |
| " | *Adler, J., Bell, G. H. and.* An optical device for recording small changes of pressure or volume | 100, 12*P*, 1941. |
| Kolb, L. C. | *Carmichael, E. A., Honeyman, W. M., —— and Stewart, W. K.* A physiological study of the skin resistance response in man | 99, 329, 1941. |
| " | *Carmichael, E. A., Honeyman, W. M., —— and Stewart, W. K.* Peripheral conduction rate in the sympathetic nervous system of man | 99, 338, 1941. |
| Korenchevsky, V. | The female prostatic gland and its reaction to male sexual compounds | 90, 371, 1937. |
| " | *Hall, K. and.* Effects of castration and of sexual hormones on the adrenals of male rats | 91, 365, 1938. |

| | | |
|---|---|---|
| KOSAKA, T. | The control of the insulin output of the pancreas | 79, 416, 1933. |
| ,, | *Evans, C. Lovatt, Graff, A. O. de, ——, Mackenzie, K., Murphy, G. E., Vacek, T., Williams, D. H. and Young, F. G.* The utilization of blood sugar and lactate by the heart-lung preparation | 80, 21, 1933. |
| ,, | *Evans, C. Lovatt, Hsu, Fong-Yen and.* Glycolytic formation of blood lactate | 80, 19P, 1933. |
| ,, | *Evans, C. Lovatt, Hsu, Fong-Yen and.* Utilization of blood sugar and formation of lactic acid by the lungs | 82, 41, 1934. |
| KOSTERLITZ, H. W. | Galactose-1-phosphate in the liver during galactose assimilation | 93, 34P, 1938. |
| ,, | *Cruickshank, E. W. H. and.* The utilization of fat by the aglycaemic mammalian heart | 99, 208, 1941. |
| ,, | *and Ritchie, C. M.* Galactose-1-phosphoric acid in galactose metabolism | 100, 10P, 1941. |
| KRAFKA, J., JR. | , *McOrea, F. D. and Vogt, E.* The activity of the spleen during anaphylactic shock | 68, 292, 1929. |
| KRAMER, K. | *Barcroft, J., —— and Millikan, G. A.* The attainment of saturation by the arterial blood at birth | 90, 28P, 1937. |
| ,, | *and Millikan, G. A.* On the effect of external temperature on the new-born lamb | 90, 28P, 1937. |
| ,, | *Barcroft, J., Barron, D. H., —— and Millikan, G. A.* The effect of urethane on the onset of respiration at birth | 90, 29P, 1937. |
| ,, | *Barcroft, J., —— and Millikan, G. A.* The oxygen in the carotid blood at birth | 94, 571, 1939. |
| ,, | *and Winton, F. R.* The influence of urea and of change in arterial pressure on the oxygen consumption of the isolated kidney of the dog | 96, 87, 1939. |
| KREMER, M. | *Wright, Samson and.* The partition coefficient of ethyl iodide and its destruction by the tissues | 63, x, 1927. |
| ,, | *Wright, Samson and.* Studies on the circulation rate in man. I. Critical examination of ethyl iodide method | 64, 107, 1927. |
| ,, | Blood-gas figures in a case of Fallot's tetralogy | 80, 26P, 1934. |
| ,, | , *Wilson, A. T. and Wright, Samson.* Gaseous interchanges through the visceral pleura of the cat | 82, 414, 1934. |
| ,, | *and Robertson, J. D.* Estimation of the arm to tongue circulation time by means of decholin and comparison with the basal metabolic rate | 85, 24P, 1935. |
| ,, | , *Pearson, H. E. S. and Wright, Samson.* Action of prostigmine on spinal cord in man | 89, 21P, 1936. |
| KROGH, A. | *and Brandt-Rehberg, P.* The active relaxation of capillaries and venules in 'reflex flare' | 64, XXXII, 1927. |
| KROHN, P. L. | *and Zuckerman, S.* Water metabolism in relation to the menstrual cycle | 88, 369, 1937. |
| KRYNAUW, R. A. | *Doupe, J., —— and Snodgrass, S. R.* Some factors influencing venous pressure in man | 92, 383, 1938. |

| | | |
|---|---|---|
| Kwiatkowski, H. | *Gaddum, J. H. and.* The action of ephedrine | 94, 87, 1938. |
| " | *Gaddum, J. H., Jang, C. S. and.* The effect on the intestine of the substance liberated by adrenergic nerves in a rabbit's ear | 96, 104, 1939. |
| " | *Gaddum, J. H. and.* Properties of the substance liberated by adrenergic nerves in the rabbit's ear | 96, 385, 1939. |
| " | Observations on the relation of histamine to reactive hyperaemia | 100, 147, 1941. |
| La Barre, J. | *Kettenmeyer, G. and.* The effect of paralysis of the thalamic centres on adrenaline secretion | 90, 57P, 1937. |
| Lamb, F. W. | *Brown, G. L. and.* Apparatus for the observation and photography of the skin capillaries in man | 65, iv, 1928. |
| " | *Birkett, A. N. and.* Balance of ocular muscles in normal subjects | 65, ix, 1928. |
| " | *, Portman, E. D. and Woolham, J. G.* Posture deviations of the arm and their reversal | 65, x, 1928. |
| " | *and Simpson, J. V. A.* Assessment of schoolboys by air force tests | 65, xiv, 1928. |
| " | *Israëls, M. C. G. and.* The determination of the carbon dioxide content of the mixed venous blood. Part I. The effect of oxygenation and the critical oxygen tension | 67, 49, 1929. |
| " | *Israëls, M. C. G. and.* The determination of the carbon dioxide content of the mixed venous blood. Part II. Carbon dioxide equilibria between mixed venous blood and rebreathed airs | 67, 315, 1929. |
| Lambert, R. K. | *and Gremels, H.* On the factors concerned in the production of pulmonary oedema | 61, 98, 1926. |
| Lambrechts, A. | *Ellinger, P. and.* The effect of phloridzine on the elimination of dyestuffs in the kidney | 89, 30P, 1937. |
| " | *Ellinger, P. and.* Note on the localization of the glycosuric action of phloridzine | 89, 33P, 1937. |
| Lander, F. P. L. | *, Maclagan, N. F. and Nicholas, F. G.* Gastric acidity in relation to the position and motility of the stomach | 83, 17P, 1934. |
| Langley, J. N. | In memoriam | 61, 1, 1926. |
| " | Titles of works by | 61, 16, 1926. |
| Lapicque, L. | Has the muscular substance a longer chronaxie than the nervous substance? | 73, 189, 1931. |
| " | On electric stimulation of muscle through Ringer's solution | 73, 219, 1931. |
| " | Retrograde polarization, a theory of systematic errors in measurements of muscular chronaxie through Ringer's fluid or with large electrodes | 76, 261, 1932. |
| " | Alpha and gamma curves in slow muscles | 78, 381, 1933. |
| " | Neuro-muscular isochronism and chronological theory of curarization | 81, 113, 1934. |
| Latchford, W. B. | *Fenn, W. O. and.* The effect of muscle length on the energy for maintenance of tension | 80, 213, 1933. |

| | | |
|---|---|---|
| Latner, A. L. | *Hughes, J. Howell and.* Chlorophyll and haemoglobin regeneration after haemorrhage | 86, 388, 1936. |
| ,, | The carotid sinus and blood regeneration | 89, 25*P*, 1937. |
| ,, | *Hughes, J. Howell and.* Aetioporphyrin and haemoglobin regeneration after haemorrhage | 89, 403, 1937. |
| ,, | The carotid sinus and blood regeneration | 93, 75, 1938. |
| Lawrence, R. D. | A relationship between body temperature and blood sugar in rabbits | 63, xii, 1927. |
| Lazarus, S. | (Introduced by G. H. Bell.) The action of urea on the small intestine of the rabbit | 93, 32*P*, 1938. |
| Leach, E. H. | The role of leucocytes in fat absorption | 93, 1, 1938. |
| Leathes, J. B. | *and Mellanby, J.* Thrombokinase from the brain | 96, 38*P*, 1939. |
| ,, | *and Mellanby, J.* The action of lecithine on the thrombokinase of daboia venom and of brain extracts | 96, 39*P*, 1939. |
| Ledoux, A. | *Alfred, P., Hallpike, C. S. and.* Observations on the osmotic pressure of the endolymph | 98, 446, 1940. |
| Ledingham, J. M. | *and Scott, D., Jr.* The spread of the local action potential in the single nerve fibre of the crab | 92, 41*P*, 1938. |
| Lee, D. H. K. | A modification of Rehberg's microtitration apparatus | 84, 27*P*, 1935. |
| ,, | *Grande, F. and.* The effect of breathing $CO_2$ on the resting blood lactate level | 84, 28*P*, 1935. |
| ,, | *and Mulder, A. G.* Some immediate physiological effects of reduced cooling powers on human subjects | 84, 279, 1935. |
| ,, | *and Mulder, A. G.* Some immediate effects of reduced cooling powers upon the water balance and related effects in the human subject | 84, 410, 1935. |
| ,, | (Introduced by C. Lovatt Evans.) A simplified arrangement for the Haldane gas-analysis apparatus | 85, 38*P*, 1935. |
| ,, | *Gregory, R. A. and.* The regulation of cardiac rate during exposure to heat | 85, 39*P*, 1935. |
| ,, | *Gregory, R. A. and.* The effect of water intake upon human reactions to reduced cooling powers | 86, 204, 1936. |
| Lee-Lander, F. | Gastric secretion in myxoedema | 85, 21*P*, 1935. |
| Lees, D. S. | *Brown, G. L. and.* Contact breaker for variable frequencies | 72, 17*P*, 1931. |
| Lehmann, H. | *and Schlossmann, H.* The action of cell-free muscle extract on insulin | 94, 15*P*, 1938. |
| ,, | *and Pollak, L.* The influence of amino-acids on transfer of phosphate in muscle extract and on the solubility of $Mg^{++}$ and $Ca^{++}$ salts | 100, 17*P*, 1942. |
| Lehnartz, E. | (Introduced by H. H. Dale.) Potassium ions and vagus inhibition | 86, 37*P*, 1936. |
| Leibson, R. G. | , *Likhnitzky, I. I. and Sax, M. G.* Oxygen transport of the foetal and maternal blood during pregnancy | 87, 97, 1936. |

| | | |
|---|---|---|
| Leloir, L. F. | *Braun-Menendez, E., Fasciolo, J. C.,——and Muñoz, J. M.* The substance causing renal hypertension | 98, 283, 1940. |
| Lennox, J. A. | (Introduced by D. Burns.) The effect of the removal of the parathyroid glands in dogs upon the gastric motility and secretions | 78, 26*P*, 1933. |
| Levin, A. | Fatigue, retention of action current and recovery in crustacean nerve | 63, 113, 1927. |
| Levin, D. A. | *Harris, I. and.* The effects upon the human electrocardiogram of the introduction of calcium and potassium into the blood | 89, 153, 1937. |
| Levy, S. S. | The effect of extract of the suprarenal cortex in Addison's disease | 72, 4*P*, 1931. |
| Lewantowsky, M. I. | *Gaissinsky, B. E. and.* Changes in striped muscle after sympathectomy | 67, iv, 1928. |
| Lewinsky, W. | *and Stewart, D.* Nerve fibres of the odontogenetic layer of the dentine | 93, 23*P*, 1938. |
| „ | *King, J. D., —— and Stewart, D.* Degenerative changes in the axis cylinders of the dental nerves, due to diets deficient in vitamin A and carotene | 93, 206, 1938. |
| Lewis, J. K. | *Dock, W. and.* The effect of thyroid feeding on the oxygen consumption of the heart and of other tissues | 74, 401, 1932. |
| Lewis, T. | *and Harmer, I. M.* Release of vaso-dilator substances in injuries of the skin | 62, xi, 1926. |
| „ | *and Zotterman, Y.* Vascular reactions of the skin to injury. Part VIII. The resistance of the human skin to constant currents, in relation to injury and vascular response | 62, 280, 1927. |
| „ | *and Marvin, H. M. Herpes zoster* and antidromic impulses | 62, xix, 1927. |
| „ | *and Marvin, H. M.* Observations upon a pilomotor reaction in response to faradism | 64, 87, 1927. |
| „ | The active relaxation of capillaries and venules in the reflex flare | 64, xxxvi, 1927. |
| Leyko, E. | *and Méhes, G.* The action of ephedrine on the blood sugar (with a note on its action on the denervated pupil of a cat) | 68, 247, 1929. |
| Leys, D. | The influence of adrenaline on carbohydrate metabolism | 71, 275, 1931. |
| Leyshon, W. A. | Note on a frequency recorder for use with a neon lamp excitation circuit | 71, i, 1930. |
| Liddell, E. G. T. | *Denny-Brown, D. E. and.* Observations on the motor twitch and on reflex inhibition of the tendon-jerk of *m. supraspinatus* | 63, 70, 1927. |
| „ | *Denny-Brown, D. E. and.* The stretch reflex as a spinal process | 63, 144, 1927. |
| „ | *Denny-Brown, D. E. and.* Extensor reflexes in the fore-limb | 65, 305, 1928. |
| „ | *and Olmsted, J. M. D.* The effect on the responses of the soleus muscle of an alcohol block on the sciatic nerve | 67, 33, 1929. |

| | | |
|---|---|---|
| LIDDELL, E. G. T. | *Fulton, J. F.*, —— *and Riock, D. McK.* The influence of experimental lesions of the spinal cord upon the knee-jerk and crossed extensor reflexes | 69, XXVII, 1930. |
| ,, | *Fulton, J. F.*, —— *and Riock, D. McK.* The influence of unilateral destruction of the vestibular nuclei upon posture and the knee-jerk | 70, XXII, 1930. |
| ,, | *Fulton, J. F.*, —— *and Riock, D. McK.* 'Dial' as an anaesthetic for surgical operations on the nervous system | 70, XXIII, 1930. |
| ,, | The balance of control through long spinal paths | 82, 20*P*, 1934. |
| ,, | Experimental reflex rigidities | 90, 89*P*, 1937. |
| ,, | *Carleton, H. M. and.* Effect of a liver diet upon the arterial pressure of a cat | 90, 89*P*, 1937. |
| ,, | *and Phillips, C. G.* Further observations on muscular rigidities in cats | 96, 39*P*, 1939. |
| LIDWELL, O. M. | *Bourdillon, R. B. and.* Slow vaginal potentials | 98, 480, 1940. |
| LIKHNITZKY, I. I. | *Leibson, R. G.*, —— *and Sax, M. G.* Oxygen transport of the foetal and maternal blood during pregnancy | 87, 97, 1936. |
| LILJESTRAND, G. | *Hartree, W. and.* The recovery heat production in tortoise's muscle | 62, 93, 1926. |
| ,, | *Euler, U. S. v. and.* Effect of adrenaline, sympathol, tyramine, ephetonine and histamine on gas exchange and circulation in man | 65, XXII, 1928. |
| ,, | *Euler, U. S. v.*, —— *and Zotterman, Y.* The excitation mechanism of the chemoreceptors of the carotid body | 96, 42*P*, 1939. |
| LIM, R. K. S. | *Necheles, H. and.* Recovery of a pancreatic secretory excitant by vivi-dialysis of the circulating blood | 64, XXVIII, 1927. |
| ,, | *Chang, H. C., Chia, K. F., Hsü, C. H. and.* Reflex secretion of the posterior pituitary elicited through the vagus | 90, 87*P*, 1937. |
| LINDER, G. C. | *Haldane, J. B. S.*, ——, *Hilton, R. and Fraser, F. R.* The arterial blood in ammonium chloride acidosis | 65, 412, 1928. |
| LINDHARD, J. | *and Möller, J. P.* On the elasticity of skeletal muscles | 61, 73, 1926. |
| ,, | *Buchthal, F. and.* Direct application of acetylcholine to motor end plates of voluntary muscle fibres | 90, 82*P*, 1937. |
| ,, | *Buchthal, F. and.* Acetylcholine block of the motor end-plate and electrical stimulation of nerve | 95, 59*P*, 1939. |
| LING, H. W. | *Burn, J. H. and.* The effect of injections of pituitary extract, adrenalin and insulin on ketonuria | 64, XXII, 1927. |
| ,, | *Burn, J. H. and.* The effect of insulin on acetonuria | 65, 191, 1928. |
| ,, | *Burn, J. H. and.* Ketonuria in rats on a fat diet (*a*) after injections of pituitary (anterior lobe) extract, (*b*) during pregnancy | 69, XIX, 1930. |

| | | |
|---|---|---|
| Lipmann, F. | *Meyerhof, O. and.* Changes of pH during activity of muscle | 69, xxi, 1930. |
| Lison, L. | Athrophagocytosis in the closed nephrons of *Bufo vulgaris* following intraglomerular injection | 90, 79*P*, 1937. |
| Litarczek, G. | Oxidation processes occurring in the system plasma (serum)—potassium ferricyanide | 65, 1, 1928. |
| Little, M. G. A. | *and McSwiney, B. A.* Afferent fibres from the diaphragm | 94, 2*P*, 1938. |
| Liu, S. H. | *and Noble, R. L.* Experimental renal insufficiency following intrarenal arterial injection of posterior pituitary extract | 93, 13*P*, 1938. |
| „ | *Dodds, E. C., —— and Noble, R. L.* Water balance and blood changes following posterior pituitary extract administration | 94, 124, 1938. |
| Lium, R. | *Wright, R. D., Jennings, M. A., Florey, H. W. and.* Observations on intestinal secretion | 96, 13*P*, 1939. |
| Livingston, A. E. | *Ellis, M. P. and.* A method of directly recording changes in the calibre of the bronchi | 84, 223, 1935. |
| Lloyd, D. P. C. | The transmission of impulses through the inferior mesenteric ganglia | 91, 296, 1937. |
| „ | The transmission of impulses by ganglionic direct fibres | 93, 86, 1938. |
| „ | The excitability states of inferior mesenteric ganglion cells following preganglionic activation | 95, 464, 1939. |
| „ | The origin and nature of ganglion after-potentials | 96, 118, 1939. |
| Lloyd, J. W. | *Baar, H. S. and.* The life span of the red corpuscles and the maturation time of reticulocytes | 98, 12*P*, 1940. |
| Loach, J. V. | The alleged occurrence of acetylcholine in normal ox blood | 82, 118, 1934. |
| Loewi, O. | *and Hellauer, H.* The acetylcholine content of the nerves of warm-blooded animals | 93, 34*P*, 1938. |
| Loh, G. L. | *Macgregor, R. G. S. and.* The influence of a tropical environment upon the basal metabolism, pulse rate and blood pressure in Europeans | 99, 496, 1941. |
| Long, C. | *, Ochoa, S. and Peters, R. A.* Pyruvate oxidation in brain, not involving a succinate cycle | 96, 7*P*, 1939. |
| Long, M. Louisa | The behaviour of the liver glycogen during decerebration hyperglycaemia and the influence of atropine and of ergotamine on this condition | 80, 296, 1933. |
| Loomis, A. L. | *Christie, R. V. and.* The pressure of aqueous vapour in the alveolar air | 77, 35, 1932. |
| Loughridge, W. M. | *Barcroft, H. and.* On the accuracy of the thermostromuhr method for measuring blood flow | 93, 382, 1938. |

| | | |
|---|---|---|
| Lowdon, A. G. R. | *McKail, R. A., Ras, S. L., Stewart, C. P. and Wilson, W. C.* Changes in sodium and in other constituents of blood and extracellular fluids following scalds | 96, 27P, 1939. |
| Löwenstein, O. | *and Sand, A.* The significance of the spontaneous discharge from the horizontal ampulla of the dogfish | 86, 43P, 1936. |
| " | *and Sand, A.* The individual and integrated activity of the semicircular canals of the elasmobranch labyrinth | 99, 89, 1940. |
| Lucas, C. L. T. | *Cullis, W. C. and.* Action of acetylcholine on the aneural chick heart | 86, 53P, 1936. |
| Ludford, R. J. | *Cramer, W. and.* On cellular activity and cellular structure as studied in the thyroid gland | 61, 398, 1926. |
| " | *Cramer, W. and.* On the cellular mechanism of bile secretion and its relation to the Golgi apparatus of the liver cell | 62, 74, 1926. |
| Ludwig, C. | *Adrian, E. D. and.* Nervous discharges from the olfactory organs of fish | 94, 441, 1938. |
| Lundsgaard, E. | *Baylis, L. E. and.* The action of cyanide on the isolated mammalian kidney | 74, 279, 1932. |
| " | *Cattell, McKeen and.* The efficiency of isolated muscle in relation to the degree of aerobic activity | 78, 246, 1933. |
| " | *and Wilson, A. T.* Muscle phosphorus compounds in adrenal insufficiency | 80, 29P, 1934. |
| Lyall, A. | *and Nicol, B. M.* The gastric secretions in experimental hypochlorsemia | 96, 21, 1939. |
| Lythgoe, R. J. | *and Tansley, Katherine.* A photographic method for the estimation of coloured solutions with special reference to visual purple | 68, 45, 1929. |
| " | The absorption spectra of visual purple and of indicator yellow | 89, 331, 1937. |
| " | *and Phillips, L. R.* Binocular summation during dark adaptation | 91, 427, 1938. |
| " | *and Quilliam, J. P.* The thermal decomposition of visual purple | 93, 24, 1938. |
| " | *and Quilliam, J. P.* The relation of transient orange to visual purple and indicator yellow | 94, 399, 1938. |
| " | *Broda, E. E., Goodeve, C. F. and.* The weight of the chromophore carrier in the visual purple molecule | 98, 397, 1940. |
| Macbeth, R. G. | *Barclay, A. E., Franklin, K. J. and.* A contribution to the study of ciliary movement | 90, 347, 1937. |
| McCall, J. | *and Smellie, A. B.* A modified Krogh's bicycle ergometer | 72, 405, 1931. |
| McCance, R. A. | *and Widdowson, E. M.* The secretion of urine in man during experimental salt deficiency | 91, 222, 1937. |
| " | The effect of salt deficiency in man on the volume of the extracellular fluids, and on the composition of sweat, saliva, gastric juice and cerebro-spinal fluid | 92, 208, 1938. |

McCance, R. A. *and Widdowson, E. M.* The absorption and excretion of iron following oral and intravenous administration 94, 148, 1938.
" *and Widdowson, E. M.* Functional disorganisation of the kidney in disease 95, 36, 1939.
" *and Young, W. F.* The secretion of urine by newborn infants 99, 265, 1941.
McCarthy, E. F. A comparison of foetal and maternal haemoglobins in the goat 80, 206, 1933.
" *Barcroft, J., Elliott, R. H. E., Flexner, L. B., Hall, F. G., Herkel, W., ——, McClurkin, T. and Talaat, M.* Conditions of foetal respiration in the goat 83, 192, 1934.
" *Barcroft, J., Flexner, L. B., Herkel, W., —— and McClurkin, T.* The utilization of oxygen by the uterus in the rabbit 83, 215, 1934.
" Oxygen dissociation curves and osmotic pressures of haemoglobins of different species 86, 77, 1936.
" The osmotic pressure of foetal and maternal sera in the sheep 93, 81, 1938.
McClure, G. S. *Cruickshank, E. W. H. and.* On the question of the utilization of amino acids and fat by the mammalian heart 86, 1, 1936.
McClurkin, T. *Barcroft, J., Flexner, L. B. and.* The output of the foetal heart in the goat 82, 498, 1934.
" *Barcroft, J., Elliott, R. H. E., Flexner, L. B., Hall, F. G., Herkel, W., McCarthy, E. F., —— and Talaat, M.* Conditions of foetal respiration in the goat 83, 192, 1934.
" *Barcroft, J., Flexner, L. B., Herkel, W., McCarthy, E. F. and.* The utilization of oxygen by the uterus in the rabbit 83, 215, 1934.
McCrea, E. D. *and McSwiney, B. A.* The effect of stimulation of the vagi on the pyloric region of the stomach 61, 28, 1926.
" *and Macdonald, A. D.* Pre-sacral sympathectomy and the bladder in man 86, 20P, 1938.
McCrea, F. D. *Krafka, J., Jr., —— and Vogt, E.* The activity of the spleen during anaphylactic shock 68, 292, 1929.
McCullagh, G. P. , *McFadden, G. D. and Milroy, T. H.* The effects produced by unilateral lumbar sympathectomy. I. Cutaneous temperatures and the limb musculature 69, 353, 1930.
MacDonald, A. *Barcroft, J., Barron, D. M., Cowie, A. T., Forsham, P. H. and.* The effect of asphyxia on inhibition of respiratory movement in the sheep's foetus 96, 12P, 1939.
Macdonald, A. D. *and Schlapp, W.* Adrenaline vaso-dilation 62, xii, 1926.
" *Portman, E. D. and.* The action of pituitary extracts upon isolated blood vessels 65, xiii, 1928.
" *and Settle, H. L.* Actions of posterior pituitary principles on the colon 86, 8P, 1935.
" *McCrea, E. D. and.* Pre-sacral sympathectomy and the bladder in man 86, 20P, 1935.

| | | |
|---|---|---|
| Macdonald, A. D. | *and Woolfe, G.* Blood histamine in traumatic shock | 93, 58P, 1938. |
| " | *and Wielicki, L.* Effects of cabbage extracts on carbohydrate metabolism | 94, 249, 1938. |
| MacDonald, I. | *Cruickshank, E. W. H., —— and Startup, C. W.* The effect of insulin aglycaemia upon the amino-acid utilization of the mammalian heart. (Preliminary communication) | 82, 18P, 1934. |
| Macdonald, J. S. | *and Macdonald (now Munday), Margaret S.* 'Habit' in walking, and its cost | 72, 18P, 1931. |
| Macdonald, (now Munday), Margaret S. | *Macdonald, J. S. and.* 'Habit' in walking, and its cost | 72, 18P, 1931. |
| McDougall, E. J. | *Horne, E. A., —— and Mayle, H. E.* Influence of the autonomic nerves on alimentary hyperglycaemia and on the absorption of glucose | 80, 48, 1933. |
| " | The influence of calcium on intestinal absorption | 85, 109, 1935. |
| " | *and McDowall, R. J. S.* Response to different methods of stimulating the vaso-constrictor centre | 87, 22P, 1936. |
| McDowall, R. J. S. | On the nature and significance of vagus escape | 61, 131, 1926. |
| " | *Hemingway, A. and.* On the survival of striped mammalian muscles | 61, vi, 1926. |
| " | *Hobbs, L. S., Hyder, R. I. and.* A class experiment to demonstrate the effect of load on the frog heart | 61, xix, 1926. |
| " | The relation of the vagus to respiration | 61, xix, 1926. |
| " | A convenient method of decerebration | 61, xix, 1926. |
| " | *Hemingway, A. and.* The chemical regulation of capillary tone | 62, 166, 1926. |
| " | The relation of alkali to the parasympathetic | 62, xxviii, 1927. |
| " | *Battle, M. A. and.* The effect of alkali on blood sugar | 62, xxxiii, 1927. |
| " | The influence of acid base equilibrium on the activities of blood vessels | 65, 25, 1928. |
| " | Class experiments in leucocytosis | 65, v, 1928. |
| " | A new volume recorder | 66, xvii, 1928. |
| " | A central chemical control of the heart rate | 67, xxi, 1929. |
| " | The effect of carbon dioxide on certain reflex activities | 69, ix, 1929. |
| " | A vertebral clamp | 69, xi, 1930. |
| " | The effect of carbon dioxide on the circulation. Part I | 70, 301, 1930. |
| " | *and Thornton, J. W.* A method of recording the movements of isolated bronchi | 70, xliv, 1930. |
| " | A cortical flexor rigidity | 71, ix, 1931. |
| " | On variations in the activity of the cardio-inhibitory centre | 71, 417, 1931. |
| " | A convenient method of studying the reactions of the vaso-motor centre | 77, 21P, 1932. |
| " | Depressor shock | 78, 32P, 1933. |
| " | A right auricular pressor reflex | 81, 5P, 1934. |
| " | On the function of the depressor mechanisms | 82, 4P, 1934. |

| | | |
|---|---|---|
| McDowall, R. J. S. | A flexor rigidity preparation | 83, 36*P*, 1934. |
| ,, | A cardio-pressor nerve | 83, 37*P*, 1934. |
| ,, | *Gorrill, F. S., D'Silva, J. L. and.* The adrenaline-like substance of *Cytisus scoparius* | 83, 37*P*, 1934. |
| ,, | Capacity effects from the carotid sinus | 84, 24*P*, 1935. |
| ,, | The relation of the carotid and aortic reflexes to undulatory changes in blood-pressure | 84, 56*P*, 1935. |
| ,, | Acute pericardial oedema | 84, 63*P*, 1935. |
| ,, | A method of using alternating mains current for time markers, etc. | 84, 64*P*, 1935. |
| ,, | The effect of the carotid sinus on the venous flow | 86, 7*P*, 1935. |
| ,, | *Edholm, O. and.* The effect of the aortic and cardiac depressors on the circulatory response to posture | 86, 8*P*, 1935. |
| ,, | Tetanus shock | 87, 22*P*, 1936. |
| ,, | *McDougall, E. J. and.* Response to different methods of stimulating the vaso-constrictor centre | 87, 22*P*, 1936. |
| ,, | *and McWhan, I.* Histamine and adrenaline dilatation in saline perfusion experiments | 87, 91*P*, 1936. |
| ,, | The effect of the peripheral resistance on the responses to the intravenous injection of fluid | 99, 5*P*, 1941. |
| ,, | The effect of acid and alkali on muscle vessels | 100, 14*P*, 1941. |
| ,, | The potentiation of adrenaline dilatation by histamine | 100, 17*P*, 1942. |
| McFadden, G. D. | *McCullagh, G. P., —— and Milroy, T. H.* The effects produced by unilateral lumbar sympathectomy. I. Cutaneous temperatures and the limb musculature | 69, 353, 1930. |
| Macfarlane, R. G. | , *Trevan, J. W. and Attwood, Adela M. P.* Participation of a fat soluble substance in coagulation of the blood | 99, 7*P*, 1941. |
| McGavran, Joyce | *Ferguson, J. H., —— and Smith, Elizabeth B. B.* Pilocarpine and gastric anacidity in monkeys | 82, 1, 1934. |
| McGeorge, M. | , *Sherif, M. and Smirk, F. H.* Observations on the properties of S-methyl iso-thiourea sulphate, with particular reference to the circulatory effects | 100, 474, 1942. |
| McGlone, B. | *Bazett, H. C. and.* The effect of temperature on the acidity of the skin | 64, 393, 1928. |
| ,, | *Bazett, H. C., —— and Brocklehurst, R. J.* The temperatures in the tissues which accompany temperature sensations | 69, 88, 1930. |
| Macgregor, R. G. | *and Peat, S.* An investigation into a possible nervous mechanism involved in the liberation of histamine | 71, 31, 1931. |
| ,, | *and Peat, S.* The histamine-histaminase system in the isolated perfused kidney-lung preparation | 77, 310, 1933. |
| ,, | *and Thorpe, W. V.* The extraction of histamine from tissues by electrodialysis. (Preliminary communication) | 77, 33*P*, 1933. |

| | | |
|---|---|---|
| Macgregor, R. G. | Examination of the pulmonary circulation with the microscope | 80, 65, 1933. |
| Macgregor, R. G. S. | *and Lok, C. L.* The influence of a tropical environment upon the basal metabolism, pulse rate and blood pressure in Europeans | 99, 496, 1941. |
| McFenney, E. W. | *Best, C. H. and.* The inactivation of histamine | 70, 349, 1930. |
| " | *Gavin, Gertrude, —— and Wilson, M. J.* Histamine in canine gastric tissues | 79, 234, 1933. |
| " | *Best, C. H., Huntsman, M. Elinor, —— and Ridout, Jessie H.* The effects of diets low in choline | 84, 38P, 1935. |
| " | An effect of choline upon the weights of young rats | 85, 343, 1935. |
| " | *Best, C. H., Mawson, M. Elinor Huntsman, —— and Ridout, Jessie H.* The effect of diets low in choline | 86, 315, 1936. |
| " | (Introduced by F. G. Young.) Vitamin $B_1$ and fatty livers | 86, 27P, 1936. |
| " | Vitamin $B_1$ and fatty livers | 89, 287, 1937. |
| MacIntosh, F. C. | Effect of preganglionic section on acetylcholine in the ganglion | 92, 22P, 1938. |
| " | (Introduced by H. H. Dale.) Acetylcholine and synaptic transmission in a ganglion | 93, 1P, 1938. |
| " | Glucose and acetylcholine synthesis in a ganglion | 93, 46P, 1938. |
| " | Liberation of acetylcholine by the perfused superior cervical ganglion | 94, 155, 1938. |
| " | The effect of insulin hypoglycaemia and $B_1$-avitaminosis on the acetylcholine content of the brain | 96, 6P, 1939. |
| " | *Brown, G. L. and.* Discharges in nerve fibres produced by potassium ions | 96, 10P, 1939. |
| " | *Kahlson, G. and.* Acetylcholine synthesis in a sympathetic ganglion | 96, 277, 1939. |
| " | *Harvey, A. M. and.* Calcium and synaptic transmission in a sympathetic ganglion | 97, 408, 1940. |
| " | The distribution of acetylcholine in the peripheral and the central nervous system | 99, 436, 1941. |
| Macintosh, R. R. | *and Pratt, C. L. G.* The absorption of anaesthetic agents from the urinary bladder | 93, 53P, 1938. |
| McIntosh, Rustin | On the effect of diathermy on blood volume | 73, 361, 1931. |
| McIntyre, A. K. | The quick component of nystagmus | 97, 8, 1939. |
| McKail, R. A. | *Adam, H. M., ——, Obrador, S. and Wilson, W. C.* Acetylcholine in the cerebro-spinal fluid | 93, 45P, 1938. |
| " | *Lowdon, A. G. R., ——, Rae, S. L., Stewart, C. P. and Wilson, W. C.* Changes in sodium and in other constituents of blood and extracellular fluids following scalds | 96, 27P, 1939. |
| " | *, Obrador, S. and Wilson, W. C.* The action of acetylcholine, eserine and other substances on some motor responses of the central nervous system | 99, 312, 1941. |
| Mackay, I. | *Kennedy, W. P. and.* The normal leucocyte picture in a hot climate | 87, 336, 1936. |

MACKAY, I. F. S. The indirect determination of the gas tensions in the mixed venous blood 96, 0, 1939.

" The composition of alveolar air 98, 73, 1940.

" The automatic collection of lung gases in cats 99, 83, 1940.

MACKEITH, M. H. A note on the action of alcohol on the perfused isolated rabbit heart 62, VI, 1926.

" *Heaton, T. B. and.* On the action of pilocarpine 63, 42, 1927.

MCKEOWN, T. *and Spurrell, W. R.* The results of adrenalectomy in the pregnant albino rat 98, 255, 1940.

MACKENZIE, D. W. *Drury, A. N. and.* The influence of vagal stimulation upon conduction through the branches of the A.-V. bundle in the dog 80, 329, 1934.

MACKENZIE, K. *Evans, C. Lovatt, Graff, A. C. de, Kosaka, T., ——, Murphy, G. E., Vacek, T., Williams, D. H. and Young, F. G.* The utilization of blood sugar and lactate by the heart-lung preparation 80, 21, 1933.

MCLACHLIN, A. D. *Franklin, K. J. and.* The constrictor response of the inferior vena cava to stimulation of the splanchnic nerve 86, 381, 1936.

" *Franklin, K. J. and.* Stream-lines in the abdominal vena cava 86, 386, 1936.

" *Franklin, K. J. and.* Further studies upon the reactions of the abdominal vena cava 87, 87, 1936.

" *Franklin, K. J. and.* Dilatation of veins in response to tapping in man and in certain other mammals 88, 257, 1936.

" *Franklin, K. J. and.* The reactions of the abdominal vena cava 88, 261, 1936.

" *Franklin, K. J. and.* Stream-lines in the abdominal vena cava in the late stages of pregnancy 88, 263, 1936.

" *Franklin, K. J. and.* Vomiting produced, in the cat, by ligation of the mesenteric vein 90, 254, 1937.

MACLAGAN, N. F. (Introduced by E. C. Dodds.) Further evidence against the theory of duodenal regurgitation. A statistical analysis of 389 fractional test meals 81, 16P, 1934.

" The influence of the acid base equilibrium on gastric secretion 83, 16P, 1934.

" *Lander, F. P. L., —— and Nicholas, F. G.* Gastric acidity in relation to the position and motility of the stomach 83, 17P, 1934.

" (Introduced by E. C. Dodds.) Gastric secretion and physique 83, 39P, 1934.

" The role of appetite in the control of body weight 90, 385, 1937.

MCLAUGHLIN, A. I. G. Nerves and nerve endings in the visceral pleura of the cat 80, 101, 1933.

MACLEAN, D. L. *Best, C. H., —— and Ridout, Jessie H.* Choline and liver fat in phosphorus poisoning 83, 275, 1935.

" *Best, C. H., Cowan, Campbell and.* Heparin and the formation of white thrombi 92, 20, 1938.

" *Barrett, H. M., Best, C. H., —— and Ridout, Jessie H.* The effect of choline on the fatty liver of carbon tetrachloride poisoning 97, 103, 1939.

| | | |
|---|---|---|
| McLean, F. J. | *Musgraith, B. G. and.* Experimental arterial hypertension in rabbits. Effect of section of renal nerves | 92, 44P, 1938. |
| ,, | *and Musgraith, B. G.* A simple clamp for constriction of arteries in small animals | 95, 10P, 1939. |
| ,, | *Brown, G. M., —— and Musgraith, B. G.* The pressor response of hypertensive rabbits to injections of tyramine and posterior pituitary extract | 96, 48P, 1939. |
| MacLean, H. | *and Griffiths, W. J.* The factors influencing the concentration of hydrochloric acid during gastric digestion | 65, 63, 1928. |
| ,, | *, Griffiths, W. J. and Williams, B. W.* Variations in the acidity and total chloride contained in the secretion from an isolated Pavlov pouch in the dog | 65, 77, 1928. |
| ,, | *and Griffiths, W. J.* The automatic regulation of gastric acidity | 66, 356, 1928. |
| ,, | *Griffiths, W. J. and Hughes, T. A.* The relationship of peptic activity to neutral chloride secretion during gastric digestion in man | 67, 409, 1929. |
| Macleod, J. | *and Ponder, E.* The measurement of red cell volume. IV. Alterations in cell volume in hypotonic plasma | 77, 181, 1933. |
| ,, | *and Ponder, E.* Solvent water in the mammalian erythrocyte | 86, 147, 1936. |
| Macleod, J. J. R. | *Simpson, W. W. and.* The immediate products of post-mortem glycogenolysis in mammalian muscle and liver | 64, 255, 1927. |
| ,, | *Magee, H. E. and.* Diffusion through the wall of the living and the dead intestine | 67, xvii, 1929. |
| ,, | *Auchinachie, D. W., —— and Magee, H. E.* Studies on diffusion through surviving isolated intestine | 69, 185, 1930. |
| ,, | *, Magee, H. E. and Purves, C. B.* Selective absorption of carbohydrates | 70, 404, 1930. |
| ,, | *Anderson, I. A., Cleghorn, R. A., —— and Peterson, J. M.* The effect of evisceration on the respiratory metabolism of the decerebrate preparation | 71, 391, 1931. |
| McMichael, J. | The portal circulation. I. The action of adrenaline and pituitary pressor extract | 75, 241, 1932. |
| ,, | The portal circulation. II. The action of acetylcholine | 77, 399, 1933. |
| ,, | *and Morris, K. M.* Acute oxygen lack and capillary permeability in man | 87, 74P, 1936. |
| MacOwan, Marion M. | *Sun, T. P. and.* Changes in parathyroid and adrenal glands and in blood calcium in relationship to egg formation in fowls. (Preliminary paper) | 70, iv, 1930. |
| McPhail, M. K. | Capacity of the uterus of the rabbit to respond to prolonged luteal activity | 79, 118, 1933. |
| ,, | *, Parkes, A. S. and White, W. E.* Ovulation after blood dilution and cross-circulation | 79, 180, 1933. |
| ,, | Induction of ovulation in the unmated oestrous ferret | 80, 78, 1933. |

McPHAIL, M. K. The effect on the reproductive organs of the rat of prolonged treatment with ovary-stimulating substances 80, 105, 1933.

" The assay of progestin 83, 145, 1934.

McQUEEN, J. *and Hill, L.* Capillary circulation in the liver and spleen of the mouse 67, xiii, 1929.

McSWINEY, B. A. *McCrea, E. D. and.* The effect of stimulation of the vagi on the pyloric region of the stomach 61, 28, 1926.

" *Brown, G. L. and.* Reaction to drugs of strips of the rabbit's gastric musculature 61, 261, 1926.

" *and Brown, G. L.* Reversal of the action of the adrenaline 62, 52, 1926.

" *and Newton, W. H.* Reaction of smooth muscle to the H-ion concentration 63, 51, 1927.

" *and Newton, W. H.* Further observations on the reaction of smooth muscle to the H-ion concentration 64, 144, 1927.

" *and Wadge, W. J.* Effects of variations in intensity and frequency on the contractions of the stomach obtained by stimulation of the vagus nerve 65, 350, 1928.

" A frog's heart chamber 67, xxv, 1929.

" *and Robson, J. M.* The response of smooth muscle to stimulation of the vagus nerve 68, 124, 1929.

" *Fulton, J. S. and.* The pulse wave velocity and extensibility of the brachial and radial artery in man 69, 386, 1930.

" *Brown, G. L., —— and Wadge, W. J.* The sympathetic innervation of the stomach. I. The effect on the stomach of stimulation of the thoracic sympathetic trunk 70, 253, 1930.

" *and Robson, J. M.* The sympathetic innervation of the stomach. II. The effect of stimulation of the peri-arterial nerves on the stomach and small intestine 71, 194, 1931.

" *and Robson, J. M.* The sympathetic innervation of the stomach. III. The interaction of the vagus and sympathetic nerves 73, 141, 1931.

" *Brown, G. L. and.* The sympathetic innervation of the stomach. IV. Reversal of sympathetic action by luminal 74, 179, 1932.

" *and Pyrah, L. N.* The regulation of the pyloric sphincter 76, 127, 1932.

" *and Spurrell, W. R.* The gastric fibres of the vagus nerve 77, 447, 1933.

" *and Spurrell, W. R.* The emptying time of the stomach for hypotonic meals 78, 28P, 1933.

" *and Spurrell, W. R.* The outline method for investigating gastric motility 79, 423, 1933.

" *and Spurrell, W. R.* Influence of osmotic pressure upon the emptying time of the stomach 79, 437, 1933

" *Bain, W. A., Irving, J. T. and.* Visceral afferent fibres 83, 8P, 1934.

" *Bain, W. A., Irving, J. T. and.* Visceral afferent fibres 83, 28P, 1934.

| | | |
|---|---|---|
| McSwiney, B. A. | *and Spurrell, W. R.* The effect of fat on gastric motility | 84, 41, 1935. |
| ,, | *Bain, W. A., Irving, J. T. and.* The afferent fibres from the abdomen in the splanchnic nerves | 84, 323, 1935. |
| ,, | *Irving, J. T. and.* Afferent fibres from the pylorus and upper duodenum | 85, 4P, 1935. |
| ,, | *Harper, A. A., —— and Suffolk, S. F.* Afferent fibres from the abdomen in the vagus nerves | 85, 267, 1935. |
| ,, | *Bain, W. A. and.* A mammalian muscle-nerve preparation | 86, 17P, 1935. |
| ,, | *Harrison, J. S. and.* The chemical transmitter of motor impulses to the stomach | 87, 79, 1936. |
| ,, | *Irving, J. T., —— and Suffolk, S. F.* Afferent fibres from the stomach and small intestine | 89, 407, 1937. |
| ,, | *Harper, A. A. and.* The spinal pathways of the pupillo-dilator reflex | 89, 47P, 1937. |
| ,, | *Harper, A. A. and.* Ascending spinal pathways of the pupillo-dilator fibres | 90, 395, 1937. |
| ,, | *and Suffolk, S. F.* Segmental distribution of certain visceral afferent neurones of the pupillo-dilator reflex in the cat | 93, 104, 1938. |
| ,, | *Little, M. G. A. and.* Afferent fibres from the diaphragm | 94, 2P, 1938. |
| ,, | *Carmichael, E. A., Doupe, J., Harper, A. A. and.* Vasomotor reflexes in man following duodenal distension | 95, 276, 1939. |
| ,, | *Downman, C. B., Goggio, A. F., —— and Young, M. H. C.* Reflex vaso-motor responses from the paws of the cat | 96, 14P, 1939. |
| McVicar, G. A. | *Cleghorn, R. A., Cleghorn, S. M. M., Forster, M. G. and.* Some factors influencing the survival of rats after adrenalectomy and the suitability of the young rat for testing the potency of adrenal cortical extracts | 86, 229, 1936. |
| ,, | *Armstrong, C. W. J., Cleghorn, R. A., Fowler, J. L. A. and.* Some effects of stimulation of sympathetic nerves and injection of pressor drugs in adrenalectomized cats | 96, 146, 1939. |
| Macwalter, R. J. | *Drummond, J. C., Gilding, H. P. and.* The fate of carotene introduced into the circulation | 82, 75, 1934. |
| ,, | *Drummond, J. C. and.* The fate of carotene injected into the circulation of the rat | 83, 236, 1934. |
| McWhan, I. | *McDowall, R. J. S. and.* Histamine and adrenaline dilatation in saline perfusion experiments | 87, 91P, 1936. |
| Margraith, B. G. | *and McLean, F. J.* Experimental arterial hypertension in rabbits. Effect of section of renal nerves | 92, 44P, 1938. |
| ,, | *McLean, F. J. and.* A single clamp for constriction of arteries in small animals | 95, 10P, 1939. |
| ,, | *Brown, G. M., McLean, F. J. and.* The pressor response of hypertensive rabbits to injections of tyramine and posterior pituitary extract | 96, 46P, 1939. |

| | | |
|---|---|---|
| Mansbaith, B. G. | *Brown, G. M. and.* Characteristics of the circulation of hypertensive rabbits | 99, 304, 1941. |
| Magee, H. E. | *and Reid, C.* Studies on the movements of the alimentary canal. I. The effects of electrolytes on the rhythmical contractions of the isolated mammalian intestine | 63, 97, 1927. |
| „ | *and Glennie, A. E.* Effect of ether anaesthesia on some blood constituents | 64, x, 1927. |
| „ | *and Harvey, D.* The effect of insulin on the blood sugar of the pig | 64, xxxi, 1927. |
| „ | *and Southgate, B. A.* A method for determining the effect of electrolytes in the lumen of the surviving gut on its movements. (Preliminary communication) | 65, vii, 1928. |
| „ | *and Macleod, J. J. R.* Diffusion through the wall of the living and the dead intestine | 67, xvii, 1929. |
| „ | *and Southgate, B. A.* Influence on intestinal movements of electrolytes in the lumen of isolated segments | 68, 67, 1929. |
| „ | *Auchinachie, D. W., Macleod, J. J. R. and.* Studies on diffusion through surviving isolated intestine | 69, 185, 1930. |
| „ | *Macleod, J. J. R., —— and Purves, C. B.* Selective absorption of carbohydrates | 70, 404, 1930. |
| „ | *and Reid, E.* The absorption of glucose from the alimentary canal | 73, 163, 1931. |
| „ | *and Sen, K. C.* The influence of electrolytes on the function of the intestinal mucosa | 75, 433, 1932. |
| „ | *Bell, D. J., Horne, E. A. and.* The decerebrate rat | 78, 196, 1933. |
| „ | *Horne, E. A. and.* Glycogen synthesis in the small intestine | 78, 288, 1933. |
| „ | *and Reid, E.* Indirect calorimetry applied to the fowl | 78, 2P, 1933. |
| „ | *Horne, E. A., McDougall, E. J. and.* Influence of the autonomic nerves on alimentary hyperglycaemia and on the absorption of glucose | 80, 48, 1933. |
| Magladery, J. W. | *Eccles, J. C. and.* The action potential of smooth muscle | 86, 57P, 1936. |
| „ | *Eccles, J. C. and.* Pharmacological investigations on smooth muscle | 87, 87P, 1936. |
| „ | *Eccles, J. C. and.* Responses of denervated smooth muscle | 89, 45P, 1937. |
| „ | *Eccles, J. C. and.* The excitation and response of smooth muscle | 90, 31, 1937. |
| „ | *Eccles, J. C. and.* Rhythmic responses of smooth muscle | 90, 68, 1937. |
| Maher-Loughnan, G. P. | *Franklin, K. J. and.* The 'circular' musculature of the small intestine | 94, 426, 1938. |
| Mainwaring, B. R. S. | *Aylward, F. X., Grieve, W. S. M., —— and Wilkinson, J. F.* The haemopoietic activity of mammalian livers | 100, 94, 1941. |
| Maizels, M. | *Hampson, A. C. and.* The effects of variations in pH on the volume of red cells | 62, xvi, 1926. |

| | | |
|---|---|---|
| Maizels, M. | *and Hampson, A. C.* The effect of *p*H on the distribution of phosphorus between human red cells and potassium phosphate solutions | 63, 1, 1927. |
| ,, | *Conybeare, E. T., Dersham, H. B. A. B., —— and Pembrey, M. S.* Observations upon the respiratory exchange, temperature and sugar in the blood of anaesthetised animals | 64, xix, 1927. |
| ,, | *Hampson, A. C. and.* The difference of *p*H between plasma and red cells | 64, xx, 1927. |
| ,, | The rate of diffusion into erythrocytes | 77, 22*P*, 1932. |
| Major, R. H. | *, Nanninga, J. B. and Weber, C. J.* A comparison of the properties of certain tissue extracts having depressor effects | 76, 487, 1932. |
| Marcu, I. | Further evidence for the existence of depressor fibres in sensory nerves | 67, xxxvi, 1929. |
| Margaria, R. | The vapour pressure of normal human blood | 70, 417, 1930. |
| ,, | *Barcroft, J. and.* Some effects of carbonic acid on the character of human respiration | 72, 175, 1931. |
| ,, | *Brinkman, R. and.* The influence of haemoglobin on the hydration and dehydration velocities of $CO_2$ | 72, 6*P*, 1931. |
| ,, | The effect of $CO_2$ on vapour pressure of blood and of haemoglobin solutions | 72, 7*P*, 1931. |
| ,, | On the state of $CO_2$ in blood and haemoglobin solutions, with an appendix on some osmotic properties of glycine in solution | 73, 311, 1931. |
| ,, | *Barcroft, J. and.* Some effects of carbonic acid in high concentration on respiration | 74, 156, 1932. |
| ,, | *Brinkman, R., ——, Meldrum, N. U. and Roughton, F. J. W.* The $CO_2$ catalyst present in blood | 75, 3*P*, 1932. |
| ,, | An apparent change of *p*H on stretching a muscle | 82, 496, 1934. |
| Mark, E. G. L. | *Daly, I. de Burgh, —— and Petrovskaia, Barbara.* A broncho-constrictor action of adrenaline following injections of pituitrin, pitocin or pitressin in isolated perfused lungs | 89, 26*P*, 1937. |
| Markowitz, J. | *Cathcart, E. P. and.* The influence of various sugars on the respiratory quotient. A contribution to the significance of the R.Q. | 63, 309, 1927. |
| Marks, H. P. | *Burn, J. H. and.* The production of sugar in the perfused liver from non-protein sources | 61, 497, 1926. |
| ,, | *Bodo, R. and.* The action of insulin on the aseptically perfused heart | 63, 242, 1927. |
| ,, | *Bodo, R. and.* The action of insulin on the perfused mammalian liver | 65, 48, 1928. |
| ,, | *Bodo, R. and.* The relation of synthalin to carbohydrate metabolism | 65, 83, 1928. |
| ,, | *Corkill, A. B. and.* The effect of adrenaline on muscle glycogen | 70, 67, 1930. |
| ,, | *Corkill, A. B., Dale, H. H. and.* The respiratory quotient of the eviscerated spinal cat | 70, 86, 1930. |
| ,, | *Corkill, A. B., —— and White, W. E.* Relation of the pituitary gland to the action of insulin and adrenaline | 80, 193, 1933. |

| | | |
|---|---|---|
| Mann, H. P. | *Cope, O., Corkill, A. B., —— and Ockel, S.* A study of chemical changes associated with muscular contraction in normal and adrenalectomized animals | 82, 305, 1934. |
| ,, | *Corkill, A. B., —— and Soskin, S.* The effects of sympathetic stimulation and of adrenaline on muscle glycogen | 83, 26, 1934. |
| ,, | *Cope, O. and.* Further experiments on the relation of the pituitary gland to the action of insulin and adrenaline | 83, 137, 1934. |
| ,, | Relation of the pituitary gland to the mobilization of muscle glycogen | 86, 38P, 1936. |
| ,, | The influence of the pituitary gland (anterior) on the peripheral action of insulin | 87, 15P, 1936. |
| ,, | *Bacq, Z. M. and.* Sympathetic stimulation, adrenaline and mobilization of muscle glycogen | 90, 56P, 1937. |
| ,, | *and Young, F. G.* Metabolism of the dog made diabetic by anterior pituitary injections | 92, 14P, 1938. |
| ,, | *and Young, F. G.* The influence of anterior pituitary extracts, injected either with or without insulin, on the glycogen contained in the livers of fasting young rabbits | 93, 61, 1938. |
| Marmont, G. | *and Wiersma, C. A. G.* On the mechanism of inhibition and excitation of crayfish muscle | 93, 173, 1938. |
| Marnay, A. | *and Nachmansohn, D.* Cholinesterase in voluntary frog's muscle | 89, 359, 1937. |
| ,, | *and Nachmansohn, D.* Choline esterase in voluntary muscle | 92, 37, 1938. |
| Marrack, J. | *and Hewitt, L. F.* The osmotic pressure of egg albumin | 66, v, 1928. |
| Marrian, G. F. | *Pee, A. R., —— and Parkes, A. S.* The significance of the occurrence of oestrin in male urine | 67, 377, 1929. |
| ,, | *and Parkes, A. S.* The assay of oestrin | 67, 389, 1929. |
| ,, | *and Parkes, A. S.* The relative amounts of oestrin required to produce the various phenomena of oestrus | 69, 372, 1930. |
| ,, | *and Newton, W. H.* The action of oestrin on the isolated uterus | 77, 4P, 1932. |
| ,, | *and Newton, W. H.* Further observations upon the action of oestrin on the isolated uterus | 78, 19P, 1933. |
| ,, | *and Newton, W. H.* The synergism between oestrin and oxytocin | 84, 133, 1935. |
| Marschak, M. E. | A simplified model of Haldane's apparatus for the determination of $O_2$ and $CO_2$ in air | 68, xiv, 1929. |
| Marsh, B. S. | *Fenn, W. O. and.* Muscular force at different speeds of shortening | 85, 277, 1935. |
| Marsh, F. | Observations upon the effects of heat and sunlight in a tropical climate | 70, xxxviii, 1930. |
| Marshall, F. H. A. | *Hammond, J. and.* Oestrus and pseudo-pregnancy in the ferret | 65, xvii, 1928. |

| | | |
|---|---|---|
| MARSHALL, F. H. A. | *and Verney, E. B.* Ovulation and pseudo-pregnancy in the rabbit as a result of nervous stimulation | 83, 12P, 1935. |
| ,, | *and Verney, E. B.* The occurrence of ovulation and pseudo-pregnancy in the rabbit as a result of central nervous stimulation | 86, 327, 1936. |
| ,, | , *Verney, E. B. and Vogt, Marthe.* The occurrence of ovulation in the rabbit as a result of stimulation of the central nervous system by drugs | 97, 128, 1939. |
| MARSHALL, P. G. | The growth effect and toxicity of some halogen derivatives of the isomeric mono-hydroxyphenylalanines | 73, 215, 1931. |
| ,, | *Illingworth, R. E., —— and Robson, J. M.* The sensitization of the guinea-pig's uterus to pituitrin | 75, 35P, 1932. |
| MARSHALL, W. | The preparation of oxyhaemoglobin crystals from ox blood | 64, xxv, 1927. |
| MARTIN, H. E. | Physiological leucocytosis. The variation in the leucocyte count during rest and exercise, and after the hypodermic injection of adrenaline | 75, 113, 1932. |
| ,, | Physiological leucocytosis. II. Post-prandial leucocytosis and Widal's haemoclasic test for hepatic efficiency | 77, 63, 1932. |
| MARTINI, E. | , *Torda, Clara and Zironi, A.* The effect of tetanus toxin on the choline esterase activity of the muscles of rats | 96, 168, 1939. |
| MARTINI, EMILIO | On the action of precipitated insulin administered by mouth | 72, 199, 1931. |
| MARVIN, H. M. | *Lewis, T. and. Herpes zoster* and antidromic impulses. (Preliminary communication) | 62, xix, 1927. |
| ,, | *Lewis, T. and.* Observations upon a pilomotor reaction in response to faradism | 64, 87, 1927. |
| ,, | *Florey, H. and.* The blood pressure reflexes of the rabbit under urethane anaesthesia | 64, 318, 1928. |
| ,, | *Florey, H., —— and Drury, A. N.* Concerning the 'central' control of the peripheral circulation | 65, 204, 1928. |
| MASON, E. M. | *Griffith, H. D., Irving, J. T. and.* The influence of ingested radioactive materials upon the thyroid gland of rats | 95, 516, 1939. |
| MASON, M. F. | *Barcroft, J., Kennedy, J. A. and.* The relation of the vagus nerve to the ductus arteriosus in the guinea-pig | 92, 1P, 1938. |
| ,, | , *Kennedy, J. A. and Barcroft, J.* Direct determination of foetal oxygen consumption | 93, 21P, 1938. |
| ,, | *Barcroft, J. and.* The atmosphere in which the foetus lives | 93, 22P, 1938. |
| ,, | A note on the manometric estimation of oxygen in small samples of blood | 94, 550, 1939. |
| ,, | *Barcroft, J., Kennedy, J. A. and.* The blood volume and kindred properties in pregnant sheep | 95, 159, 1939. |

| | | |
|---|---|---|
| Mason, M. F. | *Barcroft, J., Kennedy, J. A. and.* The direct determination of the oxygen consumption of the foetal sheep | 95, 289, 1939. |
| ,, | *Barcroft, J., Kennedy, J. A. and.* Oxygen in the blood of the umbilical vessels of the sheep | 97, 347, 1940. |
| Masuda, T. | The action of the vagus on the spleen | 62, 289, 1927. |
| Matthes, K. | The action of blood on acetylcholine | 70, 338, 1930. |
| ,, | *and Ruch, T. C.* Reflex and motor contraction in chronic spinal animals | 72, 29*P*, 1931. |
| ,, | *and Ruch, T. C.* Single-shock excitation and inhibition of contralateral extension in the spinal cat | 77, 258, 1933. |
| Matthews, B. H. C. | A new electrical recording system for physiological work | 65, 225, 1928. |
| ,, | Specific nerve impulses | 67, 169, 1929. |
| ,, | The response of a single end organ | 71, 64, 1931. |
| ,, | The response of a muscle spindle during active contraction of a muscle | 72, 153, 1931. |
| ,, | Loss of heat at high altitudes | 77, 28*P*, 1932. |
| ,, | Nerve endings in mammalian muscle | 78, 1, 1933. |
| ,, | Human electrocardiograms recorded with the cathode ray oscillograph | 78, 21*P*, 1933. |
| ,, | *Adrian, E. D. and.* Observations on the electrical activity of the cortex | 80, 1*P*, 1933. |
| ,, | Human electrocardiograms | 81, 3*P*, 1934. |
| ,, | A special purpose amplifier | 81, 28*P*, 1934. |
| ,, | Impulses leaving the spinal cord by dorsal nerve roots | 81, 29*P*, 1934. |
| ,, | *Adrian, E. D. and.* The interpretation of potential waves in the cortex | 81, 440, 1934. |
| ,, | *Barcroft, J., Elliott, R. H. E., Fraser, F. R., Herkel, W., —— and Talaat, M.* A case of deficient acclimatization to low oxygen pressure | 82, 369, 1934. |
| ,, | *Barron, D. H. and.* Dorsal root fibres | 83, 5*P*, 1934. |
| ,, | *Barron, D. H. and.* Conduction in the spinal cord | 84, 9*P*, 1935. |
| ,, | *Barron, D. H. and.* Intermittent conduction in the spinal cord | 85, 73, 1935. |
| ,, | *Barron, D. H. and.* 'Recurrent fibres' of the dorsal roots | 85, 104, 1935. |
| ,, | *Barcroft, J., Barron, D. H. and.* The genesis of respiratory movements in the sheep | 86, 29*P*, 1936. |
| ,, | *Barron, D. H. and.* Electrotonic conduction of the potentials of grey matter | 86, 29*P*, 1936. |
| ,, | *Barron, D. H. and.* Electrotonus in ventral roots of the spinal cord | 87, 26*P*, 1936. |
| ,, | *Barron, D. H. and.* The interpretation of potential changes in the spinal cord | 92, 276, 1938. |
| ,, | A simple universal amplifier | 93, 25*P*, 1938. |
| ,, | *Barron, D. H. and.* Dorsal root reflexes | 94, 26*P*, 1938. |
| ,, | *Barron, D. H. and.* Dorsal root potentials | 94, 27*P*, 1938. |
| ,, | *and Fessard, A.* Unitary synaptic potentials | 95, 39*P*, 1939. |
| Matthews, Rachel | *Adrian, E. D. and.* The action of light on the eye. Part I. The discharge of impulses in the optic nerve and its relation to the electric changes in the retina | 63, 378, 1927. |

| | | |
|---|---|---|
| MATTHEWS, RACHEL | *Adrian, E. D. and.* The action of light on the eye. Part II. The processes involved in retinal excitation | 64, 279, 1927. |
| " | *Adrian, E. D. and.* The action of light on the eye. Part III. The interaction of retinal neurones | 65, 273, 1928. |
| MAWSON, C. A. | The lactic acid metabolism of frog's muscle poisoned with iodoacetic acid. I. The lactic acid metabolism of anaerobic iodoacetate muscle. II. The lactic acid metabolism of aerobic iodoacetate muscle | 75, 201, 1932. |
| " | The re-synthesis of creatininephosphoric acid in frog's muscle poisoned with iodoacetic acid | 78, 295, 1933. |
| MAWSON, M. ELINOR HUNTSMAN | *Best, C. H., ——, McHenry, E. W. and Ridout, Jessie H.* The effect of diets low in choline | 86, 315, 1936. |
| MAY, E. | *Bateman, J. B., Harris, D. T., —— and Rosenbery, H.* The ultra-high frequency conductivity of tissues | 89, 28P, 1937. |
| MAY, R. M. | The effect of grafting or removing the posterior limb-rudiment on the spinal cord of Amphibian embryos [*Discoglossus pictus* (Otth.)] | 81, 31P, 1934. |
| MAYCOCK, W. D'A. | *Hill, M. and.* The effects of stimulation of the cervical sympathetic nerve and the superior cervical sympathetic ganglion on the blood sugar | 95, 328, 1939. |
| " | *Brown, G. L. and.* Vascular reactions of the cat after total sympathectomy | 97, 273, 1940. |
| MAYER-GROSS, W. | Spatial anomalies of higher motor activity | 85, 9P, 1935. |
| MÉNES, G. | *Leyko, E. and.* The action of ephedrine on the blood sugar (with a note on its action on the denervated pupil of a cat) | 68, 247, 1929. |
| MEIER, R. | *and Möller, R.* A new arrangement for the registration of diaphragm movements | 94, 227, 1938. |
| MELDRUM, N. U. | *Brinkman, R., Margaria, R., —— and Roughton, F. J. W.* The $CO_2$ catalyst present in blood | 75, 3P, 1932. |
| " | *and Roughton, F. J. W.* Some properties of carbonic anhydrase, the $CO_2$ enzyme present in blood | 75, 15P, 1932. |
| " (the late) | *and Roughton, F. J. W.* Carbonic anhydrase. Its preparation and properties | 80, 113, 1933. |
| " (the late) | *and Roughton, F. J. W.* The state of carbon dioxide in blood | 80, 143, 1933. |
| MELLANBY, E. | The presence in foodstuffs of substances having specific harmful effects under certain conditions | 61, XXIV, 1926. |
| " | , *Surie, E. M. and Harrison, D. C.* The anti-rachitic effect of ergot | 65, XXIX, 1928. |
| " | Nerve degeneration and bone hypertrophy induced in young animals by diet | 93, 42P, 1938. |
| | The experimental production of deafness in young animals by diet | 94, 380, 1938. |

| | | |
|---|---|---|
| Mellanby, E. | Further observations on bone overgrowth and nerve degeneration produced by defective diet | 96, 36*P*, 1939. |
| „ | Skeletal changes affecting the nervous system produced in young dogs by diets deficient in vitamin A | 99, 467, 1941. |
| Mellanby, J. | *and Huggett, A. St G.* The relation of secretin formation to the entrance of acid chyme into the small intestine—the properties of secretin | 61, 122, 1926. |
| „ | The secretion of pancreatic juice | 61, 419, 1926. |
| „ | Secretin and the portal circulation | 61, 489, 1926. |
| „ | The isolation of secretin. (Preliminary communication) | 61, xxxvii, 1926. |
| „ | The digestion and absorption of fat. (Preliminary communication) | 64, v, 1927. |
| „ | Petroleum emulsion in the small intestine | 64, xxxiii, 1927. |
| „ | Bile salts and secretin as cholagogues | 64, 331, 1928. |
| „ | The isolation of secretin—its chemical and physiological properties | 66, I, 1928. |
| „ | *and Pratt, C. L. G.* Antitrypsin and antithrombase | 92, 5*P*, 1938. |
| „ | *Leathes, J. B. and.* Thrombokinase from the brain | 96, 38*P*, 1939. |
| „ | *Leathes, J. B. and.* The action of lecithine on the thrombokinase of dabois venom and of brain extracts | 96, 39*P*, 1939. |
| „ | *and Suffolk, S. F.* Experimental oligocythaemia and splenomegaly | 96, 74, 1939. |
| „ (the late) | *and Pratt, C. L. G.* Negative phase blood produced *in vivo* by trypsin | 98, 8*P*, 1940. |
| Mellanby, K. | (Introduced by G. A. Clark.) Temperature acclimatisation in amphibia | 98, 27*P*, 1940. |
| Mellanby, May | *and Killick, Esther M.* Calcification in rabbits | 61, xxiii, 1926. |
| Mellgren, J. | Experimental investigations of the reservoir blood of the cat spleen: with special reference to haemolysis and the sedimentation reaction | 94, 483, 1939. |
| Melville, K. I. | The influence of salt saturation upon the urinary response to pituitary (posterior lobe) extract | 87, 129, 1936. |
| Mendez, R. | *Bogue, J. Yule and.* The mechanical and electrical response of the frog's heart | 67, xxxi, 1929. |
| „ | *Bogue, J. Yule and.* The relation between the mechanical and electrical response of the frog's heart | 69, 316, 1930. |
| Mendlowitz, M. | *Katz, L. N. and.* The isolated heart circuit | 92, 2*P*, 1938. |
| Meyer, P. F. | Glycogen storage and laevulose tolerance | 80, 480, 1934. |
| Meyer, K. | *Meyerhof, O. and.* The purification of the lactic acid forming enzyme of muscle | 64, xvi, 1927. |
| Meyerhof, H. L. | *and Zironi, A.* The action of embryonic extracts on the sex organs | 97, 495, 1940. |
| „ | Lymphocytosis induced by extracts from lymph nodes | 98, 21*P*, 1940. |

| | | |
|---|---|---|
| Meyerhof, O. | *and Meyer, K.* The purification of the lactic acid forming enzyme of muscle | 64, xvi, 1927. |
| " | *and Lipmann, F.* Changes of pH during activity of muscle | 69, xxi, 1930. |
| Michael, Esther A. | The effect on certain endocrine organs of feeding with liver and with ventriculin after bleeding | 75, 38*P*, 1932. |
| Millen, J. L. E. | *Barcroft, H. and.* The blood flow through muscle during sustained contraction | 97, 17, 1939. |
| Miller, F. R. | Decerebration clamp | 69, xx, 1930. |
| " | Spinal, bulbar and decerebrate reflexes in the forelimb | 73, 1, 1931. |
| " | Reflexes in the triceps extensor preparation of the forelimb | 81, 194, 1934. |
| " | The excitability of the caudate nucleus | 86, 56*P*, 1936. |
| " | The local action of eserine on the central nervous system | 91, 212, 1937. |
| Millikan, G. A. | A simple photoelectric colorimeter | 79, 152, 1933. |
| " | The kinetics of blood pigments: haemocyanin and haemoglobin | 79, 158, 1933. |
| " | The role of muscle haemoglobin | 87, 38*P*, 1936. |
| " | *Barcroft, J., Kramer, K. and.* The attainment of saturation by the arterial blood at birth | 90, 28*P*, 1937. |
| " | *Kramer, K. and.* On the effect of external temperature on the new-born lamb | 90, 28*P*, 1937. |
| " | *Barcroft, J., Barron, D. H., Kramer, K. and.* The effect of urethane on the onset of respiration at birth | 90, 29*P*, 1937. |
| " | Blood flow through cat's tongue during contraction | 93, 20*P*, 1938. |
| " | *Kennedy, J. A. and.* A blood-volume method using a blue dye and photocell | 93, 27*P*, 1938. |
| " | *Kennedy, J. A. and.* A micro blood volume method using a blue dye and photocell | 93, 276, 1938. |
| " | *Barcroft, J., Kramer, K. and.* The oxygen in the carotid blood at birth | 94, 571, 1939. |
| Mills, C. A. | (Introduced by E. H. Starling.) A conception of the mechanism of normal blood clotting | 62, ix, 1926. |
| Mills, J. N. | The effects of prolonged muscular exercise on the metabolism | 93, 144, 1938. |
| Milroy, J. A. | *Andrews, S. and.* Sublimation *in vacuo* as a method of separating certain chemical constituents of the body. (Preliminary communication) | 70, xi, 1930. |
| Milroy, T. H. | *Beattie, Florence and.* The role of the phosphates in carbohydrate metabolism in skeletal muscle. Part II. A comparison between the muscles of normal, fatigued and depancreatised animals | 62, 174, 1926. |
| " | *Beattie, Myra K., Bell, J. and.* The enzymic processes in mammalian skeletal muscle | 65, 109, 1928. |
| " | *McCullagh, G. P., McFadden, G. D. and.* The effects produced by unilateral lumbar sympathectomy. I. Cutaneous temperatures and the limb musculature | 69, 353, 1930. |

| | | |
|---|---|---|
| Milroy, T. H. | *Beattie, F. J. R., Beattie, Myra K. and.* The effects produced by unilateral lumbar sympathectomy. II. Muscle metabolism | 69, 384, 1930. |
| ,, | The co-ferment activity of adenylpyrophosphate in lactic acid fermentation | 75, 19P, 1932. |
| ,, | *Booth, F. J. and.* A water-soluble forerunner of choline in the kidneys | 84, 32P, 1935. |
| Minn, R. L. | *Dulière, W. L. and.* Quantitative study on the amphoteric properties of proteins of human serum | 90, 49P, 1937. |
| Minz, B. | *Feldberg, W., —— and Tsudzimura, H.* The mechanism of the nervous discharge of adrenaline | 80, 15P, 1933. |
| ,, | *Feldberg, W., —— and Tsudzimura, H.* The mechanism of the nervous discharge of adrenaline | 81, 286, 1934. |
| Mirski, A. | , *Rosenbaum, I., Stein, L. and Wertheimer, E.* On the behaviour of glycogen after diets rich in protein and in carbohydrate | 92, 48, 1938. |
| Mirvish, L. | , *Sacks, G. and Schrire, T.* The absorption of calcium from the gall-bladder | 70, 434, 1930. |
| Mitchell, T. Carlyle | The buffer substances of the gastric juice, and their relation to gastric mucus | 73, 427, 1931. |
| Moldavsky, L. F. | *and Visscher, M. B.* The energy liberstion at constant diastolic fibre length in the tortoise heart with particular reference to the effect of the emptying pressure | 91, 23, 1937. |
| Möller, J. P. | *Lindhard, J. and.* On the elasticity of skeletal muscles | 61, 73, 1926. |
| Moncrieff, A. A. | *and Wilson, A. T.* A simple alcohol check apparatus for closed circuit metabolic work | 78, 16P, 1933. |
| ,, | Rickets on a diet with adequate cod-liver oil, and scurvy on a diet containing adequate orange juice | 85, 26P, 1935. |
| Mook, H. W. | *Dirken, M. N. J. and.* The oxygen combining power of muscle haemoglobin | 69, 210, 1930. |
| ,, | *Dirken, M. N. J. and.* The carriage of carbon dioxide by blood | 70, 373, 1930. |
| ,, | *Dirken, M. N. J. and.* The rate of gas exchange between blood cells and serum | 73, 349, 1931. |
| Moorhouse, V. H. K. | *Cameron, A. T. and.* The relation between plasma and cerebrospinal fluid calcium | 91, 90, 1937. |
| Morch, J. R. | Standardization of thyroid preparations | 67, 221, 1929. |
| Morelle, J. | Calcium shifts in experimental rickets | 70, xiii, 1930. |
| Morgan, Barbara G. E. | *Coward, Katharine H., —— and Dyer, F. J.* The influence of vitamin A deficiency on the oestrous cycle of the rat. II | 69, 349, 1930. |
| ,, | , *Coward, Katharine H., and Waller, L.* The influence of a deficiency of vitamin $B_1$ and of riboflavin on the reproduction of the rat | 100, 423, 1942. |
| Morris, K. M. | *McMichael, J. and.* Acute oxygen lack and capillary permeability in man | 87, 74P, 1936. |

| | | |
|---|---|---|
| Morris, N. | *Ford, F. J., Graham, S. G. and.* Difference between the retentions of calcium and phosphorus as a factor in the production of infantile tetany | 75, 33*P*, 1932. |
| Morris, S. | *Bell, G. H. and.* The oxytocic property of the blood of the cow | 81, 63, 1934. |
| Morson, S. | *and Phillips, G.* Contralateral effects from tension receptors in skeletal muscle | 88, 199, 1936 |
| Morton, M. C. | *and Tainter, M. L.* Effects of sympathomimetic amines on perfused blood vessels | 98, 263, 1940. |
| Morton, R. A. | *Eariam, W. T. and.* Surface tension and absorption spectrum of female urine over a menstrual cycle | 95, 404, 1939. |
| Moruzzi, G. | *Adrian, E. D. and.* High-frequency discharges from cerebral neurones | 95, 27*P*, 1939. |
| " | *Adrian, E. D. and.* Impulses in the pyramidal tract | 97, 153, 1939. |
| Mukherjee, H. N. | The production of hypoglycaemia in rabbits by oral administration of precipitated insulin | 70, 182, 1930. |
| " | Hypoglycaemic action of insulin-phosphotungstate and phosphotungstic acid administered by mouth | 84, 362, 1935. |
| Mulder, A. G. | *Lee, D. H. K. and.* Some immediate physiological effects of reduced cooling powers on human subjects | 84, 279, 1935. |
| " | *Lee, D. H. K. and.* Some immediate effects of reduced cooling powers upon the water balance and related effects in the human subject | 84, 410, 1935. |
| Müller, E. A. | *Visscher, M. B. and.* The influence of insulin upon the mammalian heart | 62, 341, 1927. |
| " | *Bayliss, L. E., —— and Starling, E. H.* The action of insulin and sugar on the respiratory quotient and metabolism of the heart-lung preparation | 65, 33, 1928. |
| Müller, R. | *Meier, R. and.* A new arrangement for the registration of diaphragm movements | 94, 227, 1938. |
| Muñoz, J. M. | *Braun-Menendez, E., Fasciolo, J. C., Leloir, L. F. and.* The substance causing renal hypertension | 98, 283, 1940. |
| Munsterhjelm, A. | *Granit, R. and.* The electrical responses of dark-adapted frogs' eyes to monochromatic stimuli | 88, 436, 1937. |
| " | *Granit, R., —— and Zewi, M.* The relation between concentration of visual purple and retinal sensitivity to light during dark adaptation | 96, 31, 1939. |
| Murphy, G. E. | *and Young, F. G.* The behaviour of liver glycogen in experimental animals. IV. The effect of some anaesthetics | 76, 395, 1932. |
| " | *Evans, C. Lovatt, —— and Young, F. G.* The behaviour of liver glycogen in experimental animals. V. Some factors affecting liver glycogen recovery in the decapitate cat | 76, 413, 1932. |

| | | |
|---|---|---|
| MURPHY, G. E. | *Evans, C. Lovatt, Graff, A. C. de, Kosaka, T., Mackenzie, K., ——, Vasak, T., Williams, D. H. and Young, F. G.* The utilization of blood sugar and lactate by the heart-lung preparation | 80, 21, 1933. |
| MURRAY, MARGARET M. | *Edkins, Nora and.* The effect of $CO_2$ on the absorption of alcohol and the influence of alcohol on the diffusion of $CO_2$ in the small intestine | 62, 13, 1926. |
| " | *Edkins, Nora and.* The effect of alcohol on the absorption of glucose from the alimentary tract. Part II | 66, 102, 1928. |
| " | The small intestine and gastric secretion (with special reference to Brunner's Glands) | 69, 48, 1930. |
| " | *Edkins, Nora and.* Sugar tolerance and alcohol | 71, 403, 1931. |
| " | The diuretic action of alcohol and its relation to pituitrin | 76, 379, 1932. |
| " | The antagonistic effect of alcohol on pituitrin hyperglycaemia | 77, 247, 1933. |
| " | Maternal transference of fluorine | 87, 388, 1936. |
| MUSKENS, L. J. J. | A discussion on the part played by the supravestibular connections in decerebrate rigidity | 64, 303, 1928. |
| MYANT, N. B. | *and Pratt, C. L. G.* The antikinasic action of cobra venom | 98, 10P, 1940. |
| " | The influence of histamine on the absorption of sodium sulphate by the stomach | 99, 156, 1940. |
| MYERS, G. N. | Two instruments for recording the movements of the intestinal sphincters and of the stomach | 81, 35P, 1934. |
| MYERSTEIN, W. | Effect of light on red blood cells. The light sensitivity of blood from different vertebrate species | 99, 510, 1941. |
| NACHMANSOHN, D. | Lactic acid formation in the muscles of adrenalectomized animals | 81, 36P, 1934. |
| " | *Marnay, A. and.* Cholinesterase in voluntary frog's muscle | 89, 359, 1937. |
| " | *Bacq, Z. M. and.* Cholinesterase in invertebrate muscles | 89, 368, 1937. |
| " | *Marnay, A. and.* Choline esterase in voluntary muscle | 92, 37, 1938. |
| " | Transmission of nerve impulses in the central nervous system | 93, 2P, 1938. |
| " | Choline esterase in voluntary muscle | 95, 29, 1939. |
| " | *Feldberg, W., Fessard, A. and.* The cholinergic nature of the nervous supply to the electrical organ of the *Torpedo* (*Torpedo marmorata*) | 97, 3P, 1940. |
| NAKAZAWA, F. | *Churchill, E. D., —— and Drinker, C. K.* The circulation of body fluids in the frog | 63, 304, 1927. |
| NANNINGA, J. B. | *Major, R. H., —— and Weber, C. J.* A comparison of the properties of certain tissue extracts having depressor effects | 76, 487, 1932. |

| | | |
|---|---|---|
| Narayana, B. | An improvised kymograph | 71, ix, 1931. |
| Nash, R. A. | Concerning the part played by the sinus caroticus in the central regulation of the circulation | 61, xxviii, 1926. |
| Necheles, H. | *and Lim, R. K. S.* Recovery of a pancreatic secretory excitant by vivi-dialysis of the circulating blood | 64, xxviii, 1927. |
| Needham, Dorothy Moyle | *Baldwin, E. and.* The phosphorus distribution in resting fly muscle | 80, 221, 1933. |
| Needham, J. | The sources of energy in ontogenesis | 61, xxxiii, 1926. |
| " | The avoidance of ketosis in the cleidoic egg | 77, 41P, 1933. |
| Nevin, S. | Degeneration changes after unilateral lumbar sympathectomy | 70, viii, 1930. |
| Newman, H. W. | An improved apparatus for stimulation by electromagnetic induction | 93, 28P, 1938. |
| " | *Doupe, J., —— and Wilkins, R. W.* A method for the continuous recording of systolic arterial pressure in man | 95, 239, 1939. |
| " | *Doupe, J., —— and Wilkins, R. W.* The effect of peripheral vasomotor activity on systolic arterial pressure in the extremities of man | 95, 244, 1939. |
| Newton, W. H. | *McSwiney, B. A. and.* Reaction of smooth muscle to the H-ion concentration | 63, 51, 1927. |
| " | *McSwiney, B. A. and.* Further observations on the reaction of smooth muscle to the H-ion concentration | 64, 144, 1927. |
| " | Pulmonary oedema in the cat heart-lung preparation | 75, 288, 1932. |
| " | *Marrian, G. F. and.* The action of oestrin on the isolated uterus | 77, 4P, 1932. |
| " | *and Smirk, F. H.* The effect of the intravenous administration of water upon the rate of urine formation | 78, 451, 1933. |
| " | *Marrian, G. F. and.* Further observations upon the action of oestrin on the isolated uterus | 78, 19P, 1933. |
| " | The normal behaviour of the isolated uterus of the guinea-pig, and its reactions to oestrin and oxytocin | 79, 301, 1933. |
| " | *and Smirk, F. H.* The pituitary gland in relation to polyuria and to water diuresis | 81, 172, 1934. |
| " | Reciprocal activity of the cornua and cervix uteri of the goat | 81, 277, 1934. |
| " | *Marrian, G. F. and.* The synergism between oestrin and oxytocin | 84, 133, 1935. |
| " | 'Pseudo-parturition' in the mouse, and the relation of the placenta to post-partum oestrus | 84, 196, 1935. |
| " | The insensitivity of the cervix uteri to oxytocin | 89, 309, 1937. |
| " | A simple closed-circuit metabolism apparatus for small animals | 89, 421, 1937. |
| " | A note on the effects of vitamin A deficiency in pregnant rats | 92, 32, 1938. |
| " | *Brooksby, J. B. and.* The effect of the placenta on the body weight of the mouse | 92, 136, 1938. |

| | | |
|---|---|---|
| Newton, W. H. | *and Young, F. G.* The influence of the glycotropic (anti-insulin) factor of the anterior hypophysis on the insulin sensitivity of the hypophysectomized rabbit | 94, 40, 1938. |
| Ni, Tsang-G. | *and Rehberg, P. B.* On the influence of posture on kidney function | 71, 331, 1931. |
| " | Does muscular contraction affect the local blood supply in the absence of lactic acid formation? | 71, 356, 1931. |
| Nicholas, F. G. | *Lander, F. P. L., Maclagan, N. F. and.* Gastric acidity in relation to the position and motility of the stomach | 83, 17*P*, 1934. |
| Nicholls, J. V. V. | Reaction of the smooth muscle of the gastro-intestinal tract of the skate to stimulation of autonomic nerves in isolated nerve-muscle preparations | 83, 56, 1934. |
| Nicol, B. M. | *Lyall, A. and.* The gastric secretions in experimental hypochloraemia | 96, 21, 1939 |
| Nishimaru, Y. | *Barcroft, J., Benatt, A., Gresson, C. E. and.* The rate of blood flow through cyanosed skin | 73, 344, 1931. |
| " | *Barcroft, J., —— and Roy, G. B.* Observations on the time taken for corpuscles to traverse the liver | 74, 44, 1932. |
| " | *Barcroft, J., Khanna, L. C. and.* Rhythmical contraction of the spleen | 74, 294, 1932. |
| " | *Barcroft, J. and.* Cause of rhythmical contraction of the spleen | 74, 299, 1932. |
| " | *Barcroft, J. and.* Undulatory changes of blood-pressure | 74, 311, 1932. |
| " | *Barcroft, J., —— and Puri, S. R.* The action of the splanchnic nerves on the spleen | 74, 321, 1932. |
| " | *and Steggerda, F. R.* Observations on the structure and function of certain blood vessels in the spleen | 74, 327, 1932. |
| " | *Barcroft, J., —— and Steggerda, F. R.* The effects of intestinal rhythm on general blood-pressure | 74, 490, 1932. |
| Noble, R. L. | *Dodds, E. C., —— and Williams, P. C.* The pituitary gland and the control of urinary secretion | 91, 202, 1937. |
| " | *Liu, S. H. and.* Experimental renal insufficiency following intrarenal arterial injection of posterior pituitary extract | 93, 13*P*, 1938. |
| " | *and Robertson, J. D.* The effect of hypertonic solutions on gastric secretion and intraocular pressure | 93, 430, 1938. |
| " | *Dodds, E. C., Liu, S. H. and.* Water balance and blood changes following posterior pituitary extract administration | 94, 124, 1938. |
| " | Functional impairment of the anterior pituitary gland produced by the synthetic oestrogenic substance 4:4′ dihydroxy-α:β-diethylstilbene | 94, 177, 1938. |
| " | *Rinderknecht, H. and Williams, P. C.* The apparent augmentation of pituitary antidiuretic action by various retarding substances | 96, 293, 1939. |

| | | |
|---|---|---|
| Noll, P. | On the existence in the bird of a system of intrinsic fibres connecting the stomach to the small intestine | 90, 53P, 1937. |
| ,, | The intrinsic gastro-intestinal fibres are connecting fibres | 91, 1P, 1937. |
| Noltie, H. R. | *Bridge, E. M. and.* The action of adrenaline on the respiratory quotient | 85, 334, 1935. |
| Norris, Joan H. | *Apperly, F. L. and.* The automatic regulation of gastric acidity | 70, 158, 1930. |
| Nowak, S. J. G. | *Brouha, L. and.* The role of the vagus in the cardio-accelerator action of atropine in sympathectomized dogs | 95, 439, 1939. |
| ,, | *Brouha, L., —— and Dill, D. B.* The role of the vagus in the cardio-accelerator action of muscular exercise and emotion in sympathectomized dogs | 95, 454, 1939. |
| Nylén, O. | *Fromm, B., —— and Zotterman, Y.* Electric stimulation of the cochlea | 80, 3P, 1933. |
| Oastler, E. G. | *Anderson, A. B. and.* The effect of hypophysectomy on the blood calcium and phosphorus of the rat | 92, 124, 1938. |
| Orbeg, S. A. | *Dill, D. B., Edwards, H. T., Folling, A., ——, Pappenheimer, A. M., Jr. and Talbott, J. H.* Adaptations of the organism to changes in oxygen pressure | 71, 47, 1931. |
| Orrador, S | *and Odoriz, J. B.* Transmission through a lumbar sympathetic ganglion | 86, 269, 1936. |
| ,, | *Adam, H. M., McKail, R. A., —— and Wilson, W. C.* Acetylcholine in the cerebro-spinal fluid | 93, 45P, 1938. |
| ,, | *McKail, R. A., —— and Wilson, W. C.* The action of acetylcholine, eserine and other substances on some motor responses of the central nervous system | 99, 312, 1941. |
| O'Brien, A. | *Adair, G. S., Barcroft, J., Barron, D. H., Goodman, E. N., Hall, E. H., Hayasi, K., ——, Pace, J. F. and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37P, 1936. |
| O'Brien, J. R. | *Barnes, H., —— and Reader, V. B.* Crystalline preparations with vitamin $B_1$ activity | 76, 8P, 1932. |
| ,, | *Kinnersley, H. W., —— and Peters, R. A.* Crystalline preparations of vitamin $B_1$ from baker's yeast | 76, 17P, 1932. |
| ,, | *and Peters, R. A.* Vitamin $B_1$ deficiency in the rat's brain | 85, 454, 1935. |
| Ochoa, S. | *Cope, O., Corkill, A. B., Marks, H. P. and.* A study of chemical changes associated with muscular contraction in normal and adrenalectomized animals | 82, 305, 1934. |
| ,, | *Corkill, A. B. and.* Toxaemia and carbohydrate metabolism | 82, 390, 1934. |
| ,, | *Long, C., —— and Peters, R. A.* Pyruvate oxidation in brain, not involving a succinate cycle | 96, 7P, 1939. |

| | | |
|---|---|---|
| Ochoa, S. | *and Bessiter, R. J.* Adrenal cortex and phosphorylation of vitamin $B_1$ | 97, 1P, 1940. |
| O'Connor, J. M. | *Kane, F. and.* The relation between the pH of the blood and the law of isodynamic equivalence | 88, 1P, 1936. |
| " | *Kane, F. and.* The influence of the reaction of blood plasma on oxygen consumption in relation to the law of isodynamic equivalence | 91, 48, 1937. |
| " | *Fitzgerald, O. and.* The relation between respiratory quotient and alveolar $CO_2$ tension | 91, 59, 1937. |
| O'Connor, W. J. | *Feldberg, W. and.* The liberation of histamine from the perfused lung by peptone | 90, 288, 1937. |
| " | *Eccles, J. C. and.* Responses evoked by a nerve volley in mammalian striated muscle | 94, 7P, 1938. |
| " | *Eccles, J. C. and.* Action potentials evoked by indirect stimulation of curarized muscle | 94, 9P, 1938. |
| " | *Eccles, J. C. and.* Excitatory actions at the neuro-muscular junction | 95, 32P, 1939. |
| " | *Eccles, J. C. and.* 'Inhibitory' actions at the neuro-muscular junction | 95, 34P, 1939. |
| " | *Eccles, J. C. and.* The action of eserine on striated muscle | 95, 36P, 1939. |
| " | *Eccles, J. C. and.* Responses which nerve impulses evoke in mammalian striated muscles | 97, 44, 1939. |
| " | *Eccles, J. C. and.* Abortive impulses at the neuro-muscular junction | 100, 318, 1941. |
| Odoriz, J. B. | *Obrador, S. and.* Transmission through a lumbar sympathetic ganglion | 86, 269, 1936. |
| Ogasawara, M. | Energy expenditure in walking and running | 81, 255, 1934. |
| Ogden, E. | *Bayliss, L. E., Fee, A. R. and.* A method of oxygenating blood | 66, 443, 1928. |
| " | *Bayliss, L. E. and.* 'Vaso-tonins' and the pump-oxygenator-kidney preparation | 77, 34P, 1933. |
| Olmsted, J. M. D. | *Liddell, E. G. T. and.* The effect on the responses of the soleus muscle of an alcohol block on the sciatic nerve | 67, 33, 1929. |
| Orahovats, D. | The spleen and the resistance of red cells. (Preliminary note) | 61, VII, 1926. |
| " | The spleen and the resistance of red cells | 61, 436, 1926. |
| O'Reilly, H. L. | *Boyle, P. J., Conway, E. J., Kane, F. and.* Volume of interfibre spaces in frog muscle and the calculation of concentrations in the fibre water | 99, 401, 1941. |
| Oriel, G. H. | *Knott, F. A. and.* Detection of histamine-like substances in asthmatic sputa and experiments on their possible bacteriological origin | 70, XXXI, 1930. |
| " | On the occurrence of a non-heat-coagulable protein in normal and pathological urines | 70, XXXVI, 1930. |
| Orr, J. | *Bell, G. H., Cuthbertson, D. P. and.* Strength and size of bone in relation to calcium intake | 100, 299, 1941. |
| Orr-Ewing, Jean | The tolerance of normal rabbits to intravenous injection of glucose | 73, 365, 1931. |

| | | |
|---|---|---|
| Osborne, W. A. | Electric symmetry of the thorax | 77, 31P, 1932. |
| Owen, T. | *Clark-Kennedy, A. E., Bradbrooks, H. N. and.* The effect of breathing carbon dioxide on muscular exercise in man | 61, x, 1926. |
| ,, | *Clark-Kennedy, A. E. and.* The effect of high and low oxygen pressure on the respiratory exchange during exercise | 62, xiv, 1926. |
| Owles, W. H. | Alterations in the lactic acid content of the blood as a result of light exercise, and associated changes in the $CO_2$-combining power of the blood and in the alveolar $CO_2$ pressure | 69, 214, 1930. |
| Pace, J. F. | *Adair, G. S., Barcroft, J., Barron, D. H., Goodman, E. N., Hall, E. H., Hayasi, K., O'Brien, A., —— and Phillips, A. E.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37P, 1936. |
| Pal, R. K. | *and Prasad, S.* Action of insulin on the heart and blood-pressure | 82, 154, 1934. |
| ,, | *and Prasad, S.* A comparative study of the effects of adding different sugars to the perfusion fluid through frog's heart and the influence of insulin over it | 83, 285, 1935. |
| Pantin, C. F. A. | A crustacean muscle preparation | 67, xliv, 1929. |
| Pappenheimer, A. M., Jr. | *Dill, D. B., Edwards, H. T., Folling, A., Oberg, S. A., —— and Talbott, J. H.* Adaptations of the organism to changes in oxygen pressure | 71, 47, 1931. |
| Pappenheimer, J. R. | *Eggleton, M. Grace, —— and Winton, F. R.* The influence of diuretics on the osmotic work done and on the efficiency of the isolated kidney of the dog | 97, 363, 1940. |
| ,, | *Eggleton, M. Grace, —— and Winton, F. R.* The mechanisms of dilution diuresis in the isolated kidney and the anaesthetized dog | 98, 336, 1940. |
| ,, | *Eggleton, M. Grace, —— and Winton, F. R.* The relation between ureter, venous, and arterial pressures in the isolated kidney of the dog | 99, 135, 1940. |
| ,, | Vasoconstrictor nerves and oxygen consumption in the isolated perfused hindlimb muscles of the dog | 99, 182, 1941. |
| ,, | Blood flow, arterial oxygen saturation, and oxygen consumption in the isolated perfused hindlimb of the dog | 99, 283, 1941. |
| Parkes, A. S. | *and Bellerby, C. W.* Studies on the internal secretions of the ovary. I. The distribution in the ovary of the oestrus producing hormone | 61, 562, 1926. |
| ,, | *and Bellerby, C. W.* Studies on the internal secretions of the ovary. II. The effects of injection of the oestrus producing hormone during pregnancy | 62, 145, 1926. |

PARKES, A. S. *and Bellerby, C. W.* Studies on the internal secretions of the ovary. III. The effects of injection of oestrin during lactation 62, 301, 1927.
" *and Bellerby, C. W.* Studies on the internal secretions of the ovary. IV. The significance of the occurrence of oestrin in the placenta 62, 385, 1927.
" *and Bellerby, C. W.* Studies on the internal secretions of the ovary. V. The oestrus-inhibiting function of the corpus luteum 64, 233, 1927.
" *and Brambell, F. W. R.* The causation of the anoestrous period 64, 388, 1928.
" The role of the corpus luteum in the maintenance of pregnancy 65, 341, 1928.
" *Fee, A. R., Marrian, G. F. and.* The significance of the occurrence of oestrin in male urine 67, 377, 1929.
" *Fee, A. R. and.* Studies on ovulation. I. The relation of the anterior pituitary body to ovulation in the rabbit 67, 383, 1929.
" *Marrian, G. F. and.* The assay of oestrin 67, 389, 1929.
" *Hill, Margaret and.* Effects of anterior pituitary preparations on the anoestrous ferret 69, xviii, 1930.
" *Hill, Margaret and.* Ovulation induced in the hypophysectomised rabbit by anterior lobe extracts 69, xxiii, 1930.
" *Marrian, G. F. and.* The relative amounts of oestrin required to produce the various phenomena of oestrus 69, 372, 1930.
" *Zuckerman, S. and.* The oestrus cycle of the *Hamadryas* baboon 69, xxxi, 1930.
" On the synergism between oestrin and oxytocin 69, 463, 1930.
" *Deanesly, Ruth, the late A. R. Fee, and.* Studies on ovulation. II. The effect of hypophysectomy on the formation of the corpus luteum 70, 38, 1930.
" *the late A. R. Fee and.* Studies on ovulation. III. Effect of vaginal anaesthesia on ovulation in the rabbit 70, 385, 1930.
" *Hill, Margaret and.* Studies on ovulation. IV. Induction of ovulation in the hypophysectomized rabbit by administration of anterior lobe extracts 71, 36, 1931.
" *Hill, Margaret and.* Studies on ovulation. V. The action of the ovulation-producing substance of urine of pregnancy on the hypophysectomized rabbit 71, 40. 1931.
" *Hill, Margaret and.* Effect of untreated urine of pregnancy on the hypophysectomized rabbit 72, 15P, 1931.
" *Brambell, F. W. R. and.* The effect of Chicago blue and chlorazol blue on the clotting time of the blood and on ovulation in the rabbit 74, 65, 1932.
" *Brambell, F. W. R. and,* Studies on ovulation. VI. Relative importance of concentration and absolute amount of the ovulation-producing hormone 74, 173, 1932.

| | | |
|---|---|---|
| PARKES, A. S. | *Deanesly, Ruth and.* The effect of hysterectomy on the oestrous cycle of the ferret | 78, 80, 1933. |
| " | *Deanesly, Ruth and.* Note on the subcutaneous absorption of oils by rats and mice, with special reference to the assay of oestrin | 78, 155, 1933. |
| " | *Deanesly, Ruth and.* Size changes in the seminal vesicles of the mouse during development and after castration | 78, 442, 1933. |
| " | *McPhail, M. K., —— and White, W. E.* Ovulation after blood dilution and cross-circulation | 79, 180, 1933. |
| " | *and White, W. E.* The excretion of prolan after intravenous injection into the rabbit | 79, 226, 1933. |
| " | *Hill, R. Towner, —— and White, W. E.* The assay of the ovulation-producing substance | 81, 335, 1934. |
| " | *and Zuckerman, S.* Effect of oestrone on the primate prostate | 84, 15P, 1935. |
| " | *and Selye, H.* Adrenalectomy of birds | 86, 35P, 1936. |
| " | *Callow, R. K. and.* The occurrence of oestrin and progestin in adrenal, testis, and hypophysis | 87, 28P, 1936. |
| " | *and Rowlands, I. W.* Inhibition of ovulation in the rabbit by anti-gonadotropic serum | 87, 29P, 1936. |
| " | *and Rowlands, I. W.* Inhibition of ovulation in the rabbit by anti-gonadotropic serum | 88, 305, 1936. |
| " | *and Rowlands, I. W.* Ineffectiveness in birds of antisera for mammalian gonadotropic and thyrotropic substances | 90, 100, 1937. |
| " | *and Zuckerman, S.* The ovarian responses of hypophysectomized rats and X-ray sterilized mice to testosterone propionate | 93, 16P, 1938. |
| PARKINSON, J. L. | The effect of activity on the form of the muscle twitch | 78, 106, 1933. |
| " | *Cattell, McKeen and.* Changes in the 'efficiency' of muscular contraction during a series of twitches in nitrogen | 82, 258, 1934. |
| " | *Hill, A. V. and.* On keeping frogs at a low temperature | 83, 16P, 1934. |
| " | The 'after-positivity' of stimulated nerve and its relation to the first phase of the recovery heat production | 91, 293, 1937. |
| PARRY, H. B. | The effect of liver feeding in relation to oxygen want | 84, 454, 1935. |
| PARSONS, RUTH C. | Respiratory accelerator action of the carotid sinus-cardiac depressor mechanism | 96, 233, 1939. |
| PASCUAL, W. | *Rössler, R. and.* The coronary circulation in the isolated perfused heart | 74, 1, 1932. |
| PASSMORE, R. | *and Schlossmann, H.* The effect of large doses of insulin on the foetal sheep and goat | 92, 459, 1938. |
| PATERSON, W. D. | Circulatory and respiratory changes in response to muscular exercise in man | 66, 323, 1928. |
| PAUL, R. W. | *Kerridge, Phyllis M. T., ——, Reynolds, R. J., Reynolds, S. J. and Reynolds, S. R.* Cinéradiographic films illustrating normal respiration and artificial respiration with the Bragg-Paul Pulsator | 95, 63P, 1939. |

| | | |
|---|---|---|
| PAYNE, W. W. | *and Poulton, E. P.* Experiments on visceral sensation. Part I. The relation of pain to activity in the œsophagus | 63, 217, 1927. |
| „ | *and Poulton, E. P.* Experiments on visceral sensation. Part II. The sensation of 'nausea' and 'sinking'; œsophageal reflexes and counter-irritation | 65, 187, 1928. |
| PEACOCK, P. R. | *and Wright, S.* The action of light on cod-liver oil | 61, xxxvi, 1926. |
| PEARSON, H. E. S. | *Kremer, M., —— and Wright, Samson.* Action of prostigmine on spinal cord in man | 89, 21P, 1936. |
| PEARSON, M. G. | *Crowden, G. P. and.* The effect of cold on the adrenaline content of the suprarenal glands. (Preliminary communication) | 65, xxv, 1928. |
| „ | *Crowden, G. P. and.* The effect of morphia on the adrenalin content of the suprarenal glands | 65, xxxii, 1928. |
| PEAT, S. | *Macgregor, R. G. and.* An investigation into a possible nervous mechanism involved in the liberation of histamine | 71, 31, 1931. |
| „ | *Macgregor, R. G. and.* The histamine-histaminase system in the isolated perfused kidney-lung preparation | 77, 310, 1933. |
| PEMBREY, M. S. | *Conybeare, E. T., Denehan, H. B. A. B., Maizels, M. and.* Observations upon the respiratory exchange, temperature and sugar in the blood of anæsthetised animals | 64, xix, 1927. |
| „ | Weights of hearts of foetal and newly born animals | 66, xi, 1928. |
| „ | *Gorer, P. A. and.* Observations on the respiratory exchange of hibernating mammals | 67, xxi, 1929. |
| „ | *Adams, T. W. and.* The influence of muscular exercise upon digestion | 72, 1P, 1931. |
| PERCIVAL, G. H. | *Clark, A. J., —— and Stewart, C. P.* Action of calcium ions on the frog's heart | 66, 346, 1928. |
| PERRYMAN, P. W. | *and Selous, C. F.* Some physiological and physical aspects of the surface tension of urine | 85, 128, 1935. |
| „ | *and Selous, C. F.* The influence of hydrogen-ion concentration on the surface tension of some colloidal solutions | 92, 151, 1938. |
| PESTRICO, E. | The influence of mechanical factors of the circulation upon the heart volume | 65, 148, 1928. |
| PESKETT, G. L. | *Folley, S. J. and.* Automatic pressure control | 78, 13P, 1933. |
| „ | *Folley, S. J. and.* Experiments on variations in blood composition | 82, 486, 1934. |
| PETERS, R. A. | Observations upon the oxygen consumption of 'colpidium colpoda' | 68, ii, 1929. |
| „ | *Kinnersley, H. W. and.* A localized lactic acidosis in the brains of pigeons suffering from $B_1$ deficiency | 69, xi, 1930. |
| „ | *Gavrilescu, N. and. In vitro* action of anti-neuritic yeast concentrates | 72, 32P, 1931. |
| „ | *Kinnersley, H. W., O'Brien, J. R. and.* Crystalline preparations of vitamin $B_1$ from baker's yeast | 76, 17P, 1932. |

| | | |
|---|---|---|
| Peters, R. A. | *and Thompson, R. H. S.* Pyruvic acid and the avitaminous brain | 81, 22*P*, 1934. |
| ,, | *O'Brien, J. R. and.* Vitamin $B_1$ deficiency in the rat's brain | 85, 454, 1935. |
| ,, | *Long, C., Ochoa, S. and.* Pyruvate oxidation in brain, not involving a succinate cycle | 96, 7*P*, 1939. |
| Peterson, J. M. | *Hemingway, A. and.* The anti-diuretic action of the separated principles of the posterior lobe of the pituitary body | 67, xxiv, 1929. |
| ,, | *Hemingway, A. and.* The anti-diuretic effect of the separated principles of the pituitary body | 68, 238, 1929. |
| ,, | *Anderson, I. A., Cleghorn, R. A., Macleod, J. J. R. and.* The effect of evisceration on the respiratory metabolism of the decerebrate preparation | 71, 391, 1931. |
| ,, | *Cleghorn, R. A. and.* The reappearance of glycogen in the muscles of the decerebrate cat after its removal during tetanic contraction | 74, 338, 1932. |
| ,, | The respiratory quotient of the eviscerate cat | 79, 508, 1933. |
| ,, | *and Startup, C. W.* The hyperglycaemic response to transection of the mid-brain | 91, 21*P*, 1937. |
| Petrovskaia, Barbara | *Daly, I. de Burgh, Mark, E. G. L. and.* A broncho-constrictor action of adrenaline following injections of pituitrin, pitocin or pitressin in isolated perfused lungs | 89, 28*P*, 1937. |
| Pfaffmann, C. | Afferent impulses from the teeth | 95, 55*P*, 1939. |
| ,, | Specific gustatory impulses | 96, 41*P*, 1939. |
| ,, | Afferent impulses from the teeth due to pressure and noxious stimulation | 97, 207, 1939. |
| ,, | Afferent impulses from the teeth resulting from a vibratory stimulus | 97, 220, 1939. |
| Phelps, H. J. | *Hemingway, A. and.* The carbohydrate metabolism of the kidney | 80, 369, 1934. |
| Phemister, D. B. | *and Handy, J.* Vascular properties of traumatised and laked bloods | 64, 155, 1927. |
| Phillips, A. E. | *Adair, G. S., Barcroft, J., Barron, D. H., Goodman, E. N., Hall, E. H., Hayasi, K., O'Brien, A., Pace, J. F. and.* The oxygen content of blood in the carotid and umbilical arteries of the foetal sheep | 87, 37*P*, 1936. |
| Phillips, C. G. | *Liddell, E. G. T. and.* Further observations on muscular rigidities in cats | 96, 39*P*, 1939. |
| Phillips, G. | *Adrian, E. D., Bronk, D. W. and.* The nervous origin of the Wever and Bray effect | 73, 2*P*, 1931. |
| ,, | *Adrian, E. D., Bronk, D. W. and.* Discharges in mammalian sympathetic nerves | 74, 115, 1932. |
| ,, | Myotatic reflexes during sympathetic stimulation | 75, 7*P*, 1932. |
| ,, | *Morson, S. and.* Contralateral effects from tension receptors in skeletal muscle | 88, 199, 1936. |
| Phillips, L. R. | *Lythgoe, R. J. and.* Binocular summation during dark adaptation | 91, 427, 1938. |
| Philpot, Flora J. | The inhibition of adrenaline oxidation by local anaesthetics | 97, 301, 1940. |

| | | |
|---|---|---|
| Pickering, G. W. | *and Prinzmetal, M.* The effect of renin on urine formation | 98, 314, 1940. |
| Pickford, L. M. | The synergism between alcohols and other drugs | 63, 19, 1927. |
| Pickford, Mary | *Klisiecki, A., ——, Rothschild, P. and Verney, E. B.* Functional division of the splanchnic nerve under local anaesthesia in the dog, and the secretion of urine | 72, 26*P*, 1931. |
| „ | *and Verney, E. B.* The effect of ligation of a primary arterial branch on the blood and urine flow of the isolated kidney of the dog | 82, 16*P*, 1934. |
| „ | The inhibition of water diuresis by pituitary (posterior lobe) extract and its relation to the water load of the body | 87, 291, 1936. |
| „ | The inhibitory action of acetylcholine on water-diuresis in the dog | 92, 18*P*, 1938. |
| „ | The inhibitory effect of acetylcholine on water diuresis in the dog, and its pituitary transmission | 95, 226, 1939. |
| Piney, A. | *King, Lorna, Kennaway, E. L. and.* A note on the action of insulin in normal persons | 66, 400, 1928. |
| Pirie, J. R. | A varnish for smoked paper | 75, 41*P*, 1932. |
| Pitt, N. E. | The influence of ether anaesthesia upon the gaseous composition of the blood. (Preliminary note) | 64, xxiv, 1927. |
| Platt, B. S. | *Dickinson, S., Havard, R. E. and.* The measurement of the hydrogen-ion concentration of blood by the glass electrode | 78, 28*P*, 1933. |
| Plewes, F. B. | *Ferguson, J. K. W., Irving, L. and.* The source of expired $CO_2$ in decapitated, eviscerated cats | 68, 265, 1929. |
| „ | *Irving, L., Ferguson, J. K. W. and.* The source of $CO_2$ expired and the site of its retention | 69, 113, 1930. |
| Pollak, L. | *Lehmann, H. and.* The influence of amino-acids on the transfer of phosphate in muscle extract and on the solubility of $Mg^{++}$ and $Ca^{++}$ salts | 100, 17*P*, 1942. |
| Ponder, E. | *Allen, A. and.* The measurement of the diameter of erythrocytes by the diffraction method | 66, 37, 1928. |
| „ | On the supposed relation between surface area and haemoglobin content in the red cells of mammalia | 66, 379, 1928. |
| „ | *and Saslow, G.* The measurement of red cell volume | 70, 18, 1930. |
| „ | *and Saslow, G.* The measurement of red cell volume. II. Alterations in cell volume in solutions of various tonicities | 70, 169, 1930. |
| „ | *and Saslow, G.* The measurement of red cell volume. III. Alterations of cell volume in extremely hypotonic solutions | 73, 267, 1931. |
| „ | *and Saslow, G.* A note on the viscosity method for measuring percentage volume of cells in blood | 74, 15*P*, 1932. |
| „ | A water manometer for class use | 74, 16*P*, 1932. |

| | | |
|---|---|---|
| Ponder, E. | *Macleod, J. and.* The measurement of red cell volume. IV. Alterations in cell volume in hypotonic plasma | 77, 181, 1933. |
| ,, | *and Robinson, E. J.* The measurement of red cell volume. V. The behaviour of cells from oxalated and from defibrinated blood in hypotonic plasma and saline | 83, 34, 1934. |
| ,, | The measurement of red cell volume. VI. The different 'fragility' of the red cells of various mammals | 83, 352, 1935. |
| ,, | The measurement of red cell volume. Conductivity measurements | 85, 439, 1935. |
| ,, | *Macleod, J. and.* Solvent water in the mammalian erythrocyte | 86, 147, 1936. |
| ,, | Reversal of the injury potential in muscle | 87, 67*P*, 1936. |
| ,, | Disk-sphere transformations of ovalocytes | 95, 13*P*, 1939. |
| ,, | *and Yelick, S.* The fixed framework of reticulocytes produced by injection of phenylhydrazine | 97, 5*P*, 1940. |
| Poole, L. T. | *Barcroft, J. and.* The blood in the spleen pulp | 64, 23, 1927. |
| Popa, Florica | *Popa, G. T. and.* The sympathetic innervation of the skeletal muscle in the wing of the pigeon: its function and morphology | 67, i, 1928. |
| Popa, G. T. | *and Popa, Florica.* The sympathetic innervation of the skeletal muscle in the wing of the pigeon: its function and morphology | 67, i, 1928. |
| Portman, E. D. | *Lamb, F. W., —— and Woolham, J. G.* Posture deviations of the arm and their reversal | 65, x, 1928. |
| ,, | *and Macdonald, A. D.* The action of pituitary extracts upon isolated blood-vessels | 65, xiii, 1928. |
| Poulsson, L. T. | On the mechanism of sugar elimination in phlorrhizin glycosuria. A contribution to the filtration-reabsorption theory on kidney function | 69, 411, 1930. |
| ,, | *Bauer, W., Dale, H. H., —— and Richards, D. W.* The control of circulation through the liver | 74, 343, 1932. |
| Poulton, E. P. | , *Spurrell, W. R. and Warner, E. C.* A method of measuring directly the total and partial pressures of the gases in blood | 61, 232, 1926. |
| ,, | *Payne, W. W. and.* Experiments on visceral sensation. Part I. The relation of pain to activity in the oesophagus | 63, 217, 1927. |
| ,, | *Payne, W. W. and.* Experiments on visceral sensation. Part II. The sensation of 'nausea' and 'sinking'; oesophageal reflexes and counter-irritation | 65, 157, 1928. |
| ,, | , *Spurrell, W. R. and Warner, E. C.* A convenient form of closed-circuit respiratory apparatus for measuring simultaneously the carbon dioxide output and the oxygen intake over short or long periods | 67, 423, 1929. |
| ,, | *Adams, T. W. and.* The fallacies of indirect calorimetry | 77, 1*P*, 1932. |
| ,, | An installation for producing a dry atmosphere | 89, 20*P*, 1936. |

| | | |
|---|---|---|
| Powell, J. F. | *Black, D. A. K., —— and Smith, A. F.* Inulin and perabrodil clearance after alimentary haemorrhage in man | 99, 344, 1941. |
| Prasad, B. N. | The carbohydrate metabolism of gut muscle | 85, 239, 1935. |
| ,, | The mechanical activity of gut muscle under anaerobic conditions | 85, 249, 1935. |
| ,, | The response to drugs of gut muscle in asphyxia and in iodoacetic acid poisoning | 86, 425, 1936. |
| Prasad, S. | *Pal, R. K. and.* Action of insulin on the heart and blood-pressure | 82, 154, 1934. |
| ,, | *Pal, R. K. and.* A comparative study of the effects of adding different sugars to the perfusion fluid through frog's heart and the influence of insulin over it | 83, 285, 1935. |
| Pratt, C. L. G. | *Mellanby, J. and.* Antitrypsin and antithrombase | 92, 5*P*, 1938. |
| ,, | The electrocardiogram of the guinea-pig | 92, 288, 1938. |
| ,, | *Macintosh, R. R. and.* The absorption of anaesthetic agents from the urinary bladder | 93, 53*P*, 1938. |
| ,, | The influence of secretin on gastric secretion | 98, 1*P*, 1940. |
| ,, | *Mellanby, the late J. and.* Negative phase blood produced *in vivo* by trypsin | 98, 8*P*, 1940. |
| ,, | *Myant, N. B. and.* The antikinasic action of cobra venom | 98, 10*P*, 1940. |
| ,, | The ageing of fowl plasma | 98, 20*P*, 1940. |
| ,, | The influence of the composition of the gastric content upon the effect of histamine | 99, 154, 1940. |
| Pratt, F. H. | *and Reid, Marion, A.* Synchronism of anuran lymph hearts and the integration of their spinal centres | 95, 345, 1939. |
| Prescott, S. L. | Respiratory paralysis by magnesium. (Preliminary note) | 82, 2*P*, 1934. |
| Priestley, J. G. | *Brieger, E., Cooke, A. M. and.* Measurement of the circulation rate in man | 85, 3*P*, 1935. |
| ,, | *Cooke, A. M. and.* Measurement of the cardiac output in man | 90, 104, 1937. |
| ,, | *and Schwarz, H.* The solubility of acetylene in blood. I. Determination of acetylene dissolved in blood or other liquids | 99, 49, 1940. |
| Prinzmetal, M. | *Pickering, G. W. and.* The effect of renin on urine formation | 98, 314, 1940. |
| Pritchard, E. A. Blake | A method of recording reflex muscular contractions in man | 68, 132, 1929. |
| ,, | The occurrence of Wedensky inhibition in myasthenia gravis | 78, 3*P*, 1933. |
| ,, | *and Walker, M. B.* The effect of prostigmin on the symptoms and on the myogram in myasthenia gravis | 84, 35*P*, 1935. |
| Pritchard, J. J. | *Eccles, J. C. and.* The action potential of motoneurones | 89, 43*P*, 1937. |
| Propper, N. | *Echlin, F. and.* 'Sensitization' by injury of the cutaneous nerve endings in the frog | 88, 388, 1937. |
| ,, | *Echlin, F. and.* Sensory fibres in the spinal accessory nerve | 92, 160, 1938. |

| | | |
|---|---|---|
| Pugsley, L. I. | The effect of parathyroid hormone and of irradiated ergosterol on calcium and phosphorus metabolism in the rat | 76, 315, 1932. |
| ,, | *and Selye, H.* The histological changes in the bone responsible for the action of parathyroid hormone on the calcium metabolism of the rat | 79, 113, 1933. |
| ,, | *Andreyev, L. and.* The effect of parathyroid hormone and of irradiated ergosterol upon the calcium content of the parotid saliva of the dog | 80, 96, 1933. |
| Pumphrey, R. J. | *and Rawdon-Smith, A. F.* Synchronized action potentials in the cercal nerve of the cockroach (*Periplaneta americana*) in response to auditory stimuli | 87, 4*P*, 1936. |
| ,, | Slow adaptation of a tactile receptor in the leg of the common cockroach | 87, 6*P*, 1936. |
| ,, | *and Rawdon-Smith, A. F.* 1 to 3 and 1 to 4 alternation in the cercal nerve of the cricket | 87, 57*P*, 1936. |
| ,, | *, Schmitt, O. H. and Young, J. Z.* Correlation of local excitability with local physiological response in the giant axon of the squid (*Loligo*) | 98, 47, 1940. |
| Puri, S. R. | *Barcroft, J., Nisimaru, Y. and.* The action of the splanchnic nerves on the spleen | 74, 321, 1932. |
| Purves, C. B. | *Macleod, J. J. R., Magee, H. E. and.* Selective absorption of carbohydrates | 70, 404, 1930. |
| Pyrah, L. N. | *McSwiney, B. A. and.* The regulation of the pyloric sphincter | 76, 127, 1932. |
| Quilliam, J. P. | *Lythgoe, R. J. and.* The thermal decomposition of visual purple | 93, 24, 1938. |
| | *Lythgoe, R. J. and.* The relation of transient orange to visual purple and indicator yellow | 94, 399, 1938. |
| ,, | *Dawson, H. and.* The permeability of the blood-aqueous humour barrier to potassium, sodium, and chloride in the surviving eye | 98 .141, 1940 |
| Rabinovich, M. | *Davies, H. W. and.* The effects of subcutaneous and intraperitoneal injection of oxygen upon the oxygen saturation of the arterial blood | 64, xxxviii, 1927. |
| | A smooth muscle vagus nerve preparation | 65, xxxv, 1928. |
| Rae, S. L. | *Lowdon, A. G. R., McKail, R. A., ——, Stewart, C. P. and Wilson, W. C.* Changes in sodium and in other constituents of blood and extracellular fluids following scalds | 96, 27*P*, 1939. |
| Ranson, R. M. | *and Zuckerman, S.* The vaginal hydrogen-ion concentration in monkeys injected with oestrone | 89, 96, 1937. |
| Rao, M. S. | *and Singh, I.* The effect of temperature on the mechanical response and the viscosity and oxygen consumption of unstriated muscle | 98, 12, 1940. |

| | | |
|---|---|---|
| Raper, H. S. | *and Smith, E. C.* Insulin and the production of acetone bodies by the perfused liver | 62, 17, 1926. |
| „ | *Deutsch, W. and.* Respiration and functional activity | 87, 275, 1936. |
| „ | *Deutsch, W. and.* The respiration and metabolism of submaxillary gland tissue of the cat | 92, 439, 1938. |
| Rau, A. S. | *Cruickshank, E. W. H. and.* Observations on the effects of temperature and of drugs on the coronary and systemic arteries | 61, xviii, 1926. |
| „ | Reactions of isolated systemic and coronary arteries | 64, 65, 1927. |
| Raventós, J. | Synergism and antagonism of acetylcholine and quaternary ammonium compounds | 88, 5*P*, 1936. |
| „ | The effects of arterial injections of drugs on the frog's gastrocnemius | 90, 8*P*, 1937. |
| „ | Action of adenine compounds on the frog's intestine | 95, 54*P*, 1939. |
| Rawdon-Smith, A. F. | *Hallpike, C. S. and.* The function of the tensor tympani muscle | 81, 25*P*, 1934. |
| „ | *Hallpike, C. S. and.* The 'Wever and Bray phenomenon'. A study of the electrical response in the cochlea with especial reference to its origin | 81, 395, 1934. |
| „ | *Hallpike, C. S. and.* The origin of the Wever and Bray phenomenon | 83, 243, 1934. |
| „ | *Hallpike, C. S., Hartridge, H. and.* Notes on a sine wave and phase-change siren | 86, 66*P*, 1936. |
| „ | *Pumphrey, R. J. and.* Synchronized action potentials in the cercal nerve of the cockroach (*Periplaneta americana*) in response to auditory stimuli | 87, 4*P*, 1936. |
| „ | *Pumphrey, R. J. and.* 1 to 3 and 1 to 4 alternation in the cercal nerve of the cricket | 87, 57*P*, 1936. |
| „ | *Oraik, K. J. W., —— and Sturdy, R. S.* Note on the effect of A.C. on the human ear | 90, 3*P*, 1937. |
| „ | *Oraik, K. J. W., —— and Sturdy, R. S.* The transient response of a primitive ear | 96, 18*P*, 1939. |
| Ray, G. B. | *Barcroft, J., Nisimaru, Y. and.* Observations on the time taken for corpuscles to traverse the liver | 74, 44, 1932. |
| Raza, S. H. | *and Spurrell, W. R.* Some characteristics of the action of urine upon amphibian melanophores | 90, 429, 1937. |
| Reader, V. B. | *Barnes, H., O'Brien, J. R. and.* Crystalline preparations with vitamin $B_4$ activity | 76, 8*P*, 1932. |
| Reay, G. A. | *Havard, R. E. and.* The influence of exercise on the inorganic phosphates of the blood and urine | 61, 35, 1926. |
| „ | *Havard, R. E. and.* The excretion of phosphate during water diuresis | 61, i, 1926. |
| Reeves, H. G. | *and Hewitt, J. A.* The effect of glyceric aldehyde and dihydroxyacetone on insulin hypoglycaemia | 61, xxxv, 1926. |
| Rehberg, P. B. See Brandt-Rehberg, P. | | |

| | | |
|---|---|---|
| Reid, C. | *Mages, H. E. and.* Studies on the movements of the alimentary canal. I. The effects of electrolytes on the rhythmical contractions of the isolated mammalian intestine | 63, 97, 1927. |
| ,, | Fibrillary twitchings in skeletal muscle during the post-ischaemic period | 73, 5*P*, 1931. |
| ,, | The inhibition of starch hydrolysis in the presence of glucose | 75, 10*P*, 1932. |
| ,, | The behaviour of glycogen and lactic acid in normal and diabetic mammalian skeletal muscle under ischaemic conditions at body temperature | 75, 14*P*, 1932. |
| ,, | The tolerance of medulliadrenalectomized and adrenalectomized rabbits to intravenous injections of glucose | 75, 25*P*, 1932. |
| ,, | Blood cholesterol and red blood cell fragility following bilateral adrenalectomy | 75, 34*P*, 1932. |
| ,, | The relation of the adrenals to anaesthetic hyperglycaemia | 75, 40*P*, 1932. |
| ,, | Survival after adrenalectomy in rabbits | 77, 37*P*, 1933. |
| ,, | *Banerji, H. and.* The adrenals and anaesthetic hyperglycaemia | 78, 370, 1933. |
| ,, | *Banerji, H. and.* The adrenals and glucose tolerance | 81, 93, 1934. |
| ,, | Magnesium and formation of glycogen in the liver | 84, 5*P*, 1935. |
| ,, | Body temperature and glycogen in the liver under chloralose | 84, 40*P*, 1935. |
| ,, | *Kerly, Margaret and.* The relation of the spleen to formation of glycogen in the liver. With a note on the rate of absorption of glucose and lactic acid | 84, 302, 1935. |
| ,, | Insulin and the formation of glycogen in the liver | 84, 65*P*, 1935. |
| ,, | Formation of glycogen in the liver of anaesthetized cats with notes on specific action | 87, 113, 1936. |
| ,, | Insulin and the storage of liver glycogen in anaesthetized cats | 87, 121, 1936. |
| ,, | The sugar utilization of hypophysectomized-depancreatized cats | 89, 32*P*, 1937. |
| ,, | *Fuchs, H. J. and.* An operating table with thermo-regulator | 91, 10*P*, 1937. |
| Reid, E. | *Mages, H. E. and.* The absorption of glucose from the alimentary canal | 73, 163, 1931. |
| ,, | *Mages, H. E. and.* Indirect calorimetry applied to the fowl | 78, 2*P*, 1933. |
| Reid, Marion A. | *Pratt, F. H. and.* Synchronism of anuran lymph hearts and the integration of their spinal centres | 95, 345, 1939. |
| Reiss, M. | *Golla, F. M. L. and.* (Introduced by J. H. Gaddum.) Observations on adreno-corticotrophic action | 100, 1*P*, 1941. |
| Rendel, Olive | *Cullis, Winifred C., —— and Dahl, Ellen.* The application of the ethyl iodide method to the determination of the circulation rate in women | 62, 104, 1926. |

| | | |
|---|---|---|
| Rendel, Olive | *Oulds, Winifred C., —— and Dahl, Ellen.* Observations on the ethyl iodide method for the determination of heart output | 64, 39, 1927. |
| Reynolds, R. J. | *Kerridge, Phyllis M. T., Paul, R. W., ——, Reynolds, S. J. and Reynolds, S. R.* Cinéradiographic films illustrating normal respiration and artificial respiration with the Bragg-Paul Pulsator | 95, 63P, 1939. |
| Reynolds, S. J. | *Kerridge, Phyllis M. T., Paul, R. W., Reynolds, R. J., —— and Reynolds, S. R.* Cinéradiographic films illustrating normal respiration and artificial respiration with the Bragg-Paul Pulsator | 95, 63P, 1939. |
| Reynolds, S. R. | *Kerridge, Phyllis M. T., Paul, R. W., Reynolds, R. J., Reynolds, S. J. and.* Cinéradiographic films illustrating normal respiration and artificial respiration with the Bragg-Paul Pulsator | 95, 63P, 1939. |
| Reynolds, S. R. M. | Acetylcholine content of uteri before and after administration of oestrin to ovariectomized rabbits | 95, 258, 1939. |
| Richards, A. N. | *Dale, H. H. and.* The depressor (vaso-dilator) action of adrenaline | 63, 201, 1927. |
| „ | *and Collison, L. W.* An apparatus for the continuous recording of the oxygen consumption of small animals | 66, 299, 1928. |
| Richards, D. W., Jr. | *Bauer, W. and.* A vaso-dilator action of acetates | 66, 371, 1928. |
| „ | *Bauer, W., Dale, H. H., Poulsson, L. T. and.* The control of circulation through the liver | 74, 343, 1932. |
| Richards, F. A. | The effect of adenylic acid and adenosine on the human heart and blood vessels | 81, 10P, 1934. |
| Richards, M. B. | *Irving, J. T. and.* The early lesions of vitamin A deficiency | 89, 2P, 1936. |
| „ | *Irving, J. T. and.* Early lesions of vitamin A deficiency | 94, 307, 1938. |
| Richardson, E. G. | *Curry, R. O. L. and.* The application of the cathode-ray oscillograph in speech analysis | 83, 45P, 1935. |
| Richardson, J. S. | *Goadby, H. K. and.* On the disappearance from the blood of intravenously injected insulin | 97, 417, 1940. |
| Richardson, K. C. | *and Young, F. G.* The 'pancreotropic' action of anterior pituitary extracts | 91, 352, 1937. |
| Richter, D. | *Blaschko, H., —— and Schlossmann, H.* Adrenaline oxidase | 89, 6P, 1936. |
| „ | *Blaschko, H., —— and Schlossmann, H.* Biological oxidation of adrenaline derivatives | 89, 39P, 1937. |
| „ | *Blaschko, H., —— and Schlossmann, H.* The inactivation of adrenaline | 90, 1, 1937. |
| „ | *Blaschko, H., —— and Schlossmann, H.* Enzymic oxidation of amines | 91, 13P, 1937. |
| „ | *and Tingey, A. H.* Amine oxidase and adrenaline | 97, 265, 1939. |
| „ | (Introduced by Prof. S. Nevin.) Adrenaline ester | 98, 25P, 1940. |
| „ | The inactivation of adrenaline *in vivo* in man | 98, 361, 1940. |

| | | |
|---|---|---|
| Riddell, L. A. | *Granit, R. and.* The electrical responses of light and dark-adapted frogs' eyes to rhythmic and continuous stimuli | 81, 1, 1934. |
| " | Local adaptation to flicker and its relation to light adaptation | 84, 111, 1935. |
| Ridout, Jessie H. | *Best, C. H. and.* The effects of cholesterol and choline on deposition of liver fat | 78, 415, 1933. |
| " | *Best, C. H., Channon, H. J. and.* Choline and the dietary production of fatty livers | 81, 409, 1934. |
| " | *Best, C. H., Maclean, D. L. and.* Choline and liver fat in phosphorus poisoning | 83, 275, 1935. |
| " | *Best, C. H. and.* Choline and the fatty liver produced by feeding cholesterol. (Preliminary communication) | 84, 7*P*, 1935. |
| " | *Best, C. H., Mawson, M. Elinor Huntsman, McHenry, E. W. and.* The effects of diets low in choline | 84, 38*P*, 1935. |
| " | *Best, C. H., Huntsman, M. Elinor, McHenry, E. W. and.* The effect of diets low in choline | 86, 315, 1936. |
| " | *Best, C. H., Grant, Rhoda and.* The 'lipotropic' effect of dietary protein | 86, 337, 1936. |
| " | *Best, C. H. and.* The effects of cholesterol and choline on liver fat | 86, 343, 1936. |
| " | *Best, C. H. and.* Dietary casein and cholesteryl esters in liver | 87, 55*P*, 1936. |
| " | *Barrett, H. M., Best, C. H. and.* A study of the source of liver fat using deuterium as an indicator | 93, 367, 1938. |
| " | *Best, C. H. and.* Undernutrition and liver fat | 94, 47, 1938. |
| " | *Barrett, H. M., Best, C. H., MacLean, D. L. and.* The effect of choline on the fatty liver of carbon tetrachloride poisoning | 97, 103, 1939. |
| " | *Best, C. H., Haist, R. E. and.* Diet and the insulin content of pancreas | 97, 107, 1939. |
| " | *Best, C. H. and.* The lipotropic action of methionine | 97, 489, 1940. |
| Rietti, C. T. | Ketosis in the pancreatic and phlorrhizin diabetes of hypophysectomized dogs | 77, 92, 1932. |
| Rijlant, P. | The pacemaker of the mammalian heart | 75, 28*P*, 1932. |
| " | Muscular tonus in man | 75, 31*P*, 1932. |
| " | Human electro-cardiograms recorded with the cathode ray oscillograph. (Introduced by C. Lovatt Evans) | 80, 17*P*, 1933. |
| " | Duality of the mechanisms of tonus and contraction in striated muscle. (Introduced by C. Lovatt Evans) | 80, 20*P*, 1933. |
| " | Localization of the respiratory centre | 90, 43*P*, 1937. |
| Rinderknecht, H. | *Noble, R. L., —— and Williams, P. C.* The apparent augmentation of pituitary antidiuretic action by various retarding substances | 96, 293, 1939. |
| Riocн, D. McK. | *Fulton, J. F., Liddell, E. G. T. and.* The influence of experimental lesions of the spinal cord upon the knee-jerk and crossed extensor reflexes | 69, xxvii, 1930. |
| " | Water diuresis | 70, 45, 1930. |

| | | |
|---|---|---|
| Rioch, D. McK. | *Fulton, J. F., Liddell, E. G. T. and.* The influence of unilateral destruction of the vestibular nuclei upon posture and the knee-jerk | 70, xxii, 1930. |
| " | *Fulton, J. F., Liddell, E. G. T. and.* 'Dial' as an anaesthetic for surgical operations on the nervous system | 70, xxiii, 1930. |
| Ritchie, A. D. | Lactic acid and rigor mortis in fish muscle | 61, iv, 1926. |
| " | The acid base equilibrium in frog's muscle | 68, 295, 1929. |
| " | The mechanics of *Pecten* muscle | 73, 4*P*, 1931. |
| " | Theories of muscular contraction | 78, 322, 1933. |
| Ritchie, C. M. | *Kosterlitz, H. W. and.* Galactose-*l*-phosphoric acid in galactose metabolism | 100, 10*P*, 1941. |
| Ritchie Russell, W. | *Denny-Brown, D. and.* Experimental cerebral concussion | 99, 153, 1940. |
| " | *Denny-Brown, D. and.* Traumatic shock in experimental cerebral concussion | 99, 6*P*, 1941. |
| Roaf, H. E. | The influence of one coloured light on the sensitivity of the eye to the same and other colours | 62, xxi, 1927. |
| " | Is so-called secondary excitation of the retina due to stimulation of the rods? | 69, i, 1929. |
| " | Adaptation to light | 71, xiii, 1931. |
| " | A model of muscle to show contraction and viscous properties | 71, xv, 1931. |
| " | Nomenclature of tracts in the nervous system | 86, 18*P*, 1935. |
| " | A device for stimulating with single make shocks | 86, 18*P*, 1935. |
| " | The effect on invertebrates of drugs which act upon the vertebrate autonomic nervous system | 86, 19*P*, 1935. |
| " | *Hailwood, J. G. and.* The sensation of yellow and anomalous trichromatism | 91, 36, 1937. |
| " | The potential difference accompanying a wave of activity | 98, 28*P*, 1940. |
| " | Triphasic electrical changes | 98, 29*P*, 1940. |
| " | *Hay, Jannet C. and.* The 'blue-green' region of the spectrum | 98, 389, 1940. |
| Robertson, A. | *Dryerre, H. and.* The effect of pregnancy on tissue lipides in the ewe | 99, 443, 1941. |
| Robertson, J. D. | The effect of haemorrhage of varying degree on blood and plasma volume, on blood sugar, and on arterial blood-pressure | 84, 393, 1935. |
| " | *and Wilson, A. T.* Impedance angle determinations: various correlations and experiments | 85, 23*P*, 1935. |
| " | *Kremer, M. and.* Estimation of the arm to tongue circulation time by means of decholin and comparison with the basal metabolic rate | 85, 24*P*, 1935. |
| " | *Noble, R. J. and.* The effect of hypertonic solutions on gastric secretion and intra-ocular pressure | 93, 430, 1938. |
| " | *and Williams, P. C.* The creatinine, sugar, and urea equilibrium between plasma and lymph, aqueous humour, cerebro-spinal fluid, and gastric secretion after a hypertonic injection of these solutions | 95, 139, 1939. |

| | | |
|---|---|---|
| Robertson, J. S. | *Cuthbertson, D. P. and.* The metabolic response to injury | 89, 53*P*, 1937. |
| Robinson, C. S. | *Harrison, T. R., —— and Syllaba, G.* The effect of muscular exercise on the oxygen capacity of the blood of man | 67, 82, 1929. |
| " | *Barcroft, J. and.* A study of some factors influencing intestinal movements | 67, 211, 1929. |
| Robinson, E. J. | *Ponder, E. and.* The measurement of red cell volume. V. The behaviour of cells from oxalated and from defibrinated blood in hypotonic plasma and saline | 83, 34, 1934. |
| Robinson, M. E. | *Adair, G. S. and.* A direct method for the measurement of the hydration of proteins | 72, 2*P*, 1931. |
| Robinson, M. H. B. | *and Thompson, J. H.* An anti-growth principle derived from the parathyroid gland | 76, 303, 1932. |
| " | *and Thompson, J. H.* The effect on the body temperature of animals of injections of an extract of parathyroid glands | 77, 26*P*, 1932. |
| Robson, J. M. | *McSwiney, B. A. and.* The response of smooth muscle to stimulation of the vagus nerve | 68, 124, 1929. |
| " | Mucification in the mature mouse caused by oestrin | 71, iii, 1930. |
| " | *McSwiney, B. A. and.* The sympathetic innervation of the stomach. II. The effect of stimulation of the peri-arterial nerves on the stomach and small intestine | 71, 194, 1931. |
| " | The control of the pregnancy changes in the uterus of the rabbit | 72, 28*P*, 1931. |
| " | *McSwiney, B. A. and.* The sympathetic innervation of the stomach. III. The interaction of the vagus and sympathetic nerves | 73, 141, 1931. |
| " | The pituitary and the reactivity of the uterine muscle | 75, 5*P*, 1932. |
| " | *Illingworth, R. E., Marshall, P. G. and.* The sensitization of the guinea-pig's uterus to pituitrin | 75, 35*P*, 1932. |
| " | *and Taylor, H.* Some factors affecting the development of the testis | 75, 37*P*, 1932. |
| " | *Gordon, J. and.* Inhibition of the anaphylactic reaction by congo red | 75, 305, 1932. |
| " | *Illingworth, R. E. and.* Factors influencing the actions of corpus luteum extracts on the rabbit's uterus | 76, 137, 1932. |
| " | The reactivity and activity of the rabbit's uterus during pregnancy, parturition and the puerperium | 78, 309, 1933. |
| " | The effects of certain tissue extracts on pregnancy | 78, 31*P*, 1933. |
| " | The reactivity and activity of the human uterus at various stages of pregnancy and at parturition | 79, 83, 1933. |
| " | The effect of oestrin on the reactivity and spontaneous activity of the rabbit's uterus | 79, 139, 1933. |
| " | The significance of the luteal action on the uterine muscle in the maintenance of gestation and initiation of parturition | 81, 372, 1934. |

| | | |
|---|---|---|
| Robson, J. M. | Uterine reactivity and activity in the mouse at various stages of the sex cycle | 82, 105, 1934. |
| „ | The effect of oestrin on the uterine reactivity and its relation to experimental abortion and parturition | 84, 121, 1935. |
| „ | The action of oestrin on the uterus of the hypophysectomized and of the pregnant rabbit | 84, 148, 1935. |
| „ | Uterine reactivity and activity *in vitro* and *in vivo* | 84, 45*P*, 1935. |
| „ | The response of the uterus of hypophysectomized rabbits to extracts of the corpus luteum | 84, 296, 1935. |
| „ | *Bell, G. H. and.* Oxytocic properties of blood extracts and their physiological significance | 84, 351, 1935. |
| „ | The action of the ovarian hormones on the uterine muscle measured *in vivo* and *in vitro* | 85, 145, 1935. |
| „ | Uterine changes in experimental abortion and their relation to parturition | 86, 171, 1936. |
| „ | Maintenance of pregnancy in the hypophysectomized rabbit with progestin | 86, 415, 1936. |
| „ | *Bell, G. H. and.* Activity of the guinea-pig uterus under the influence of ovarian and gonadotropic hormones | 87, 3*P*, 1936. |
| „ | Maintenance of the ovarian and luteal functions, and of pregnancy in the hypophysectomized rabbit | 87, 75*P*, 1936. |
| „ | The action of progesterone on the uterus of the rabbit and its antagonism by oestrone | 88, 100, 1936. |
| „ | *Bell, G. H. and.* The effect of certain hormones on the activity of the uterine muscle of the guinea-pig | 88, 312, 1936. |
| „ | Relative effectiveness of testosterone and of progesterone in the inhibition of oestrus and of the vaginal action of oestrin in mice | 90, 15*P*, 1937. |
| „ | *and Schild, H. O.* Effect of drugs on the muscular activity and blood supply of the uterus | 90, 17*P*, 1937. |
| „ | Maintenance of ovarian and luteal function in the hypophysectomized rabbit by gonadotropic hormones | 90, 125, 1937. |
| „ | Maintenance of pregnancy and of the luteal function in the hypophysectomized rabbit | 90, 145, 1937. |
| „ | Maintenance by oestrin of the luteal function in hypophysectomized rabbits | 90, 435, 1937. |
| „ | *and Schild, H. O.* Response of the cat's uterus to the hormones of the posterior pituitary lobe | 92, 1, 1938. |
| „ | *and Schild, H. O.* Effect of drugs on blood flow and activity of the uterus | 92, 9, 1938. |
| „ | *Bell, G. H. and.* The effect of certain hormones on the activity of the uterine muscle of the mouse | 92, 131, 1938. |
| „ | Maintenance and prolongation of pregnancy in hypophysectomized rabbits by oestrogenic substances | 92, 11*P*, 1938. |
| „ | Quantitative data on the inhibition of oestrus by testosterone, progesterone, and certain other compounds | 92, 371, 1938. |

| | | |
|---|---|---|
| Robson, J. M. | Antagonism between progesterone and the synthetic oestrogenic substance, triphenyl ethylene | 92, 401, 1938. |
| " | Maintenance of pregnancy in the hypophysectomized rabbit by the administration of oestrin | 95, 83, 1939. |
| " | *and Dawson, R. F.* The pharmacological actions of diethyl-stilboestrol and other oestrogenic and non-oestrogenic substances | 95, 420, 1939. |
| " | *and Eggleton, P.* Gonadotrophin from horse pituitaries | 96, 4P, 1939. |
| " | Comparison of the amounts of progesterone and of desoxycorticosterone acetate needed to produce certain progesterone-like actions | 96, 21P, 1939. |
| " | *and Dawson, R. F.* The effect of diethyl-stilboestrol on striped muscle | 96, 23P, 1939. |
| " | Prolongation of pregnancy in the hypophysectomized rabbit by progesterone and oestrogens | 97, 517, 1940. |
| Romijn, C. | *Roos, J. and.* Some conditions of foetal respiration in the cow | 92, 249, 1938. |
| " | *and Roos, J.* The air space of the hen's egg and its changes during the period of incubation | 94, 365, 1938. |
| Roos, J. | The latent period of skeletal muscle | 74, 17, 1932. |
| " | *and Romijn, C.* Some conditions of foetal respiration in the cow | 92, 249, 1938. |
| " | *Romijn, C. and.* The air space of the hen's egg and its changes during the period of incubation | 94, 365, 1938. |
| Rosenbaum, I. | *Mirski, A.,* ——, *Stein, L. and Wertheimer, E.* On the behaviour of glycogen after diets rich in protein and in carbohydrate | 92, 48, 1938. |
| Rosenberg, H. | The absolute value of the isometric heat coefficient determined by means of high-frequency calibration of the living muscle | 81, 361, 1934. |
| " | The strength-duration curve in nerve for constant electrical response | 82, 20P, 1934. |
| " | *Bogue, J. Yule and.* The rate of development and spread of electrotonus | 82, 353, 1934. |
| " | *Bogue, J. Yule and.* Action potentials in nerve of *Sepia* | 83, 21P, 1934. |
| " | The strength-duration curves of two non-medullated nerves | 83, 23P, 1934. |
| " | The excitation of medullated and non-medullated nerves by currents of short duration | 84, 50, 1935. |
| " | *Harris, D. T. and.* The strength-duration curve for constant electrotonic potential in nerve | 84, 11P, 1935. |
| " | *Harris, D. T.,* —— *and Sager, O.* The strength-frequency relation for constant A.C. electrotonus in frog's nerve | 86, 4P, 1935. |
| " | *Bogue, J. Yule,* —— *and Young, J. Z.* Electrotonus in the fin nerve of *Sepia* | 86, 6P, 1935. |
| " | *Bogue, J. Yule and.* Excitability of sensory fibres in *Maia* nerve | 87, 67, 1936. |

| | | |
|---|---|---|
| Rosenberg, H. | *Bogue, J. Yule and.* Electrical responses of *Maia* nerve to single and repeated stimuli | 87, 158, 1936. |
| „ | *Bogue, J. Yule, Chang, I. and.* Osmotic pressure and velocity of impulse in *Maia* nerve | 87, 89P, 1936. |
| „ | *Bateman, J. B., Harris, D. T., May, E. and.* The ultra-high frequency conductivity of tissues | 89, 28P, 1937. |
| Roskam, J. | *Derouaux, G. and.* Adrenaline, adrenalone and mean bleeding time | 90, 65P, 1937. |
| Ross, D. A. | Action potentials from the eighth cranial nerve of the frog | 84, 14P, 1935. |
| „ | [Introduced by E. D. Adrian.] A modified balanced-input amplifier | 85, 40P, 1935. |
| „ | Electrical studies on the frog's labyrinth | 86, 117, 1936. |
| Ross, E. J. | *Greenbaum, A., Kerridge, Phyllis M. T. and.* Normal hearing by bone conduction | 94, 14P, 1938. |
| Rossiter, R. J. | *Ochoa, S. and.* Adrenal cortex and phosphorylation of vitamin $B_1$ | 97, 1P, 1940. |
| Rössler, R. | A modified cannula for perfusion of the isolated heart | 65, xxiii, 1928. |
| „ | *and Pascual, W.* The coronary circulation in the isolated perfused heart | 74, 1, 1932. |
| Rothschild, P. | *Klisiecki, A., Pickford, Mary, —— and Verney, E. B.* Functional division of the splanchnic nerve under local anaesthesia in the dog, and the secretion of urine | 72, 26P, 1931. |
| „ | *Barcroft, J. and.* The volume of blood in the uterus during pregnancy | 76, 447, 1932. |
| „ | *Grant, R. T. and.* A device for estimating blood-pressure in the rabbit | 81, 265, 1934. |
| Rottschafer, G. | *Bean, J. W. and.* Reflexogenic and central structures in oxygen poisoning | 94, 294, 1938. |
| Roughton, F. J. W. | *Hartridge, H. and.* The rate of distribution of dissolved gases between the red blood corpuscle and its fluid environment. Part I. Preliminary experiments on the rate of uptake of oxygen and carbon monoxide by sheep's corpuscles | 62, 232, 1927. |
| „ | *Hartridge, H. and.* Photographic methods of estimating the percentage saturation of haemoglobin with various gases. I. The ratio of oxyhaemoglobin to carboxyhaemoglobin | 64, 405, 1928. |
| „ | *Forbes, W. H. and.* The equilibrium between oxygen and haemoglobin. I. The oxygen dissociation curve of dilute blood solutions | 71, 229, 1931. |
| „ | *Brinkman, R., Margaria, R., Meldrum, N. U. and.* The $CO_2$ catalyst present in blood | 75, 3P, 1932. |
| „ | *Meldrum, N. U. and.* Some properties of carbonic anhydrase, the $CO_2$ enzyme present in blood | 75, 15P, 1932. |
| „ | *Meldrum, N. U. (the late) and.* Carbonic anhydrase. Its preparation and properties | 80, 113, 1933. |
| „ | *Meldrum N. U. (the late) and.* The state of carbon dioxide in blood | 80, 143, 1933. |

| | | |
|---|---|---|
| Roughton, F. J. W. | *Ferguson, J. K. W. and.* Direct chemical estimation of 'carbamino-bound' $CO_2$ in haemoglobin solution | 81, 21*P*, 1934. |
| " | *Ferguson, J. K. W. and.* The direct chemical estimation of carbamino compounds of $CO_2$ with haemoglobin | 83, 68, 1934. |
| " | *Ferguson, J. K. W. and.* The chemical relationships and physiological importance of carbamino compounds of $CO_2$ with haemoglobin | 83, 87, 1934. |
| " | A note on the mechanism of carbamino equilibria in blood | 85, 17*P*, 1935. |
| " | *Booth, V. H. and.* The catalytic effect of buffers on the reaction $CO_2 + H_2O \rightleftharpoons H_2CO_3$ | 92, 36*P*, 1938. |
| Rowe, F. M. | *Huggett, A. St G. and.* Azo-dyes as anti-coagulants | 78, 25*P*, 1933. |
| " | *Huggett, A. St G. and.* The relationship of azo-dyes to the coagulation of blood | 80, 82, 1933. |
| " | *Huggett, A. St G. and.* The effect of salts upon the anti-coagulant action of azo dyes *in vivo* | 82, 24*P*, 1934. |
| Rowlands, I. W. | *and Singer, E.* Gonadotropic activity of the pituitaries of vitamin E deficient rats | 86, 323, 1936. |
| " | *Parkes, A. S. and.* Inhibition of ovulation in the rabbit by anti-gonadotropic serum | 87, 29*P*, 1936. |
| " | Species variation in thyrotropic activity of the pituitary gland | 88, 298, 1936. |
| " | *Parkes, A. S. and.* Inhibition of ovulation in the rabbit by anti-gonadotropic serum | 88, 305, 1936. |
| " | *Parkes, A. S. and.* Ineffectiveness in birds of antisera for mammalian gonadotropic and thyrotropic substances | 90, 100, 1937. |
| " | Specificity of antisera to gonadotropic extracts | 90, 19*P*, 1937. |
| " | Pro-gonadotropic sera | 91, 7*P*, 1937. |
| " | Biological properties of gonadotropic extract of pregnant mare serum | 92, 18*P*, 1938. |
| " | *and Young, F. G.* The capacity of pituitary preparations containing the thyrotrophic hormone to induce the formation of antisera | 95, 410, 1939. |
| Rowntree, L. G. | *Greene, C. H., Aldrich, Martha and.* Studies in the metabolism of the bile acids | 64, vii, 1927. |
| Rubenstein, B. | *Granit, R., —— and Therman, P. O.* A new type of interaction experiment with the retinal action potential | 85, 34*P*, 1935. |
| Rubin, E. L. | *Harris, I., —— and Shutt, W. J.* Modifications in the use of the glass electrode for the determination of the pH of venous blood | 81, 147, 1934. |
| Ruch, T. C. | *Matthes, K. and.* Reflex and motor contraction in chronic spinal animals | 72, 29*P*, 1931. |
| " | *Creed, R. S. and.* Regional variations in sensitivity to flicker | 74, 407, 1932. |
| " | Release of extensor rigidity of the fore-limb by separation from lumbo-sacral segments | 76, 3*P*, 1932. |
| " | *Matthes, K. and.* Single-shock excitation and inhibition of contralateral extension in the spinal cat | 77, 258, 1933. |

| | | |
|---|---|---|
| Rushton, W. A. H. | The effect upon the threshold for nervous excitation of the length of nerve exposed, and the angle between current and nerve | 63, 357, 1927. |
| " | Excitation of bent nerve | 65, 173, 1928. |
| " | Nerve excitation by multipolar electrodes | 66, 217, 1928. |
| " | Excitable substances in the nerve-muscle complex | 70, 317, 1930. |
| " | The normal presence of α and γ excitabilities in the nerve-muscle complex | 72, 265, 1931. |
| " | Nerve supply to Lucas's alpha substance | 74, 231, 1932. |
| " | Lapicque's canonical strength duration curve | 74, 424, 1932. |
| " | A new observation in the excitation of nerve and muscle | 75, 16*P*, 1932. |
| " | Identification of the gamma excitability in muscle | 75, 161, 1932. |
| " | Identification of Lucas's α excitability | 75, 445, 1932. |
| " | Lapicque's theory of curarization | 77, 337, 1933. |
| " | Threshold and current distribution in nerve | 81, 41*P*, 1934. |
| " | A physical analysis of the relation between threshold and interpolar length in the electric excitation of medullated nerve | 82, 332, 1934. |
| " | A theory of excitation | 84, 42*P*, 1935. |
| " | The initiation of the nervous impulse | 90, 5*P*, 1937. |
| Russell, Dorothy S. | *Bayliss, L. E., Kerridge, Phyllis M. Tookey and.* The excretion of protein by the mammalian kidney | 77, 386, 1933. |
| " | The distribution of unstriped muscle in the human periorbita and its possible significance in exophthalmos | 87, 63*P*, 1936. |
| Rydin, H. | *Gaddum, J. H., Khayyal, M. A. and.* The release of pharmacologically active substances by nerve trunks during electrical stimulation | 89, 9*P*, 1936. |
| Saalfeld, E. v. | *Anrep, G. V. and.* The effect of the cardiac contraction upon the coronary flow | 79, 317, 1933. |
| " | *Anrep, G. V. and.* The blood flow through the skeletal muscle in relation to its contraction | 85, 375, 1935. |
| Saam, H. G., Jr. | *Hamilton, W. F., Spradlin, M. C. and.* The $CO_2$ of the mixed venous blood of man | 70, 244, 1930. |
| Sachs, I. | *Gunn, J. A. and Gurd, M. R.* The action of some amines related to adrenaline: methoxy-phenylisopropylamines | 95, 485, 1939. |
| Sacks, G. | *Mirvish, L., —— and Schrire, T.* The absorption of calcium from the gall-bladder | 70, 434, 1930. |
| Sager, O. | *Harris, D. T., Rosenberg, H. and.* The strength-frequency relation for constant A.C. electrotonus in frog's nerve | 86, 4*P*, 1935. |
| Samaan, A. | *Anrep, G. V. and.* Double vagotomy in relation to respiration | 77, 1, 1932. |
| " | Muscular work in dogs submitted to different conditions of cardiac and splanchnic innervations | 83, 313, 1935. |
| " | The antagonistic cardiac nerves and heart rate | 83, 332, 1935. |

| | | |
|---|---|---|
| Samaan, A. | The effect of pituitary (posterior lobe) extract upon the urinary flow | 84, 54P, 1935. |
| " | Observations on the inhibition of urinary secretion in dogs by a needle-prick in the lower lumbar region | 84, 62P, 1935. |
| " | A simple drop-recorder suitable for renal work | 84, 63P, 1935. |
| " | The effect of pituitary (posterior lobe) extract upon the urinary flow in non-anaesthetized dogs | 85, 37, 1935. |
| " | *Barcroft, H. and.* The explanation of the increase in systemic flow caused by occluding the descending thoracic aorta | 85, 47, 1935. |
| " | *and Stella, G.* The stimulating action of nicotine and cyanide on the chemical receptors of the carotid sinus | 85, 7P, 1935. |
| " | *and Stella, G.* The response of the chemical receptors of the carotid sinus to the tension of $CO_2$ in the arterial blood in the cat | 85, 309, 1935. |
| " | *Handovsky, H. and.* Observations on the renal circulation in non-anaesthetized dogs | 85, 30P, 1935. |
| " | *Evans, C. Lovatt and.* Simultaneous ligature of the carotid and vertebral arteries in the dog | 87, 33P, 1936. |
| " | *Handovsky, H. and.* Observations on the renal circulation and secretion in the dog, with special reference to the effect of pituitary (posterior lobe) extract | 89, 14, 1937. |
| " | *Bouckaert, J. J., Heymans, C. and.* The role of carotid sinus and vagal chemoreceptors in the respiratory and vasomotor effects of hypoxaemia in anaesthetized and normal dogs | 94, 4P, 1938. |
| Sand, A. | *Löwenstein, O. and.* The significance of the spontaneous discharge from the horizontal ampulla of the dogfish | 86, 42P, 1936. |
| " | Peripheral excitation and inhibition of a sense organ | 89, 47P, 1937. |
| " | *Löwenstein, O. and.* The individual and integrated activity of the semicircular canals of the elasmobranch labyrinth | 99, 89, 1940. |
| Sablow, G. | *Ponder, E. and.* The measurement of red cell volume | 70, 18, 1930. |
| " | *Ponder, E. and.* The measurement of red cell volume. II. Alterations in cell volume in solutions of various tonicities | 70, 169, 1930. |
| " | *Ponder, E. and.* The measurement of red cell volume. III. Alterations of cell volume in extremely hypotonic solutions | 73, 267, 1931. |
| " | *Ponder, E. and.* A note on the viscosity method for measuring percentage volume of cells in blood | 74, 18P, 1932. |
| " | The effect of washing upon the resistance of erythrocytes to hypotonic solutions | 74, 262, 1932. |
| Sax, M. G. | *Leibson, R. G., Likhnitzky, I. I. and.* Oxygen transport of the foetal and maternal blood during pregnancy | 87, 97, 1936. |

| | | |
|---|---|---|
| Scarborough, Eleanor M. | *Cullis, Winifred C. and.* The influence of temperature in the frog. (1) On the circulation, and (2) On the circulatory effects of adrenaline and of sodium nitrite | 75, 33, 1932. |
| " | The optimum temperature for investigations on the frog's circulation | 76, 472, 1932. |
| " | The influence of temperature on the rate of excretion of phenolsulphonephthalein in the frog | 79, 109, 1933. |
| " | The influence of thyroid feeding on nembutal poisoning | 86, 183, 1936. |
| " | Nissl granules in 'fatigued' nerve cells | 94, 184, 1938. |
| Scarborough, H. | The effect of extravascular suffusion of blood and of the experimental introduction of blood and plasma on capillary resistance | 100, 8*P*, 1941. |
| Schild, H. O. | Adrenaline in the suprarenal medulla | 79, 455, 1933. |
| " | *Gaddum, J. H. and.* A sensitive physical test for adrenaline | 80, 9*P*, 1933. |
| " | *Feldberg, W. and.* Distribution of choline and acetylcholine in suprarenal glands | 81, 37*P*, 1934. |
| " | *Gaddum, J. H. and.* Depressor substances in extracts of intestine | 83, 1, 1934. |
| " | *Daly, I. de Burgh and.* Inactivation by histaminase preparations of the histamine-like substance recovered from lungs during anaphylactic shock | 83, 3*P*, 1934. |
| " | (Introduced by I. de Burgh Daly.) The origin of the histamine-like substance released in anaphylactic shock | 86, 50*P*, 1936. |
| " | (Introduced by I. de Burgh Daly.) The reaction of the guinea-pig's uterus immersed in a histamine solution to histamine and anaphylaxis | 86, 51*P*, 1936. |
| " | *Robson, J. M. and.* Effect of drugs on the muscular activity and blood supply of the uterus | 90, 17*P*, 1937. |
| " | Release of histamine-like substance in anaphylactic shock from various organs of the guinea-pig | 90, 34*P*, 1937. |
| " | *Robson, J. M. and.* Response of the cat's uterus to the hormones of the posterior pituitary lobe | 92, 1, 1938. |
| " | *Robson, J. M. and.* Effect of drugs on blood flow and activity of the uterus | 92, 9, 1938. |
| " | Histamine release in anaphylactic shock from various tissues of the guinea-pig | 95, 393, 1939. |
| Schlapp, W. | *Macdonald, A. D. and.* Adrenaline vasodilation | 62, xii, 1926. |
| " | *Deutsch, W. and.* The adrenaline content of the suprarenal glands in scurvy and in inanition | 83, 478, 1935. |
| " | *Jones, A. Morgan and.* The action and fate of injected posterior pituitary extracts in the decapitated cat | 87, 144, 1936. |
| Schlossmann, H. | *Blaschko, H. and.* Adrenaline oxidation and sympathin | 87, 7*P*, 1936. |

| | | |
|---|---|---|
| Schlossmann, H. | *Blaschko, H., Richter, D. and.* Adrenaline oxidase | 89, 6*P*, 1936. |
| " | *Blaschko, H., Richter, D. and.* Biological oxidation of adrenaline derivatives | 89, 39*P*, 1937. |
| " | *Blaschko, H., Richter, D. and.* The inactivation of adrenaline | 90, 1, 1937. |
| " | *Blaschko, H., Richter, D. and.* Enzymic oxidation of amines | 91, 13*P*, 1937. |
| " | The carbohydrate metabolism of the foetal dog under the influence of insulin | 92, 219, 1938. |
| " | *Blaschko, H. and.* Effect of temperature on the response of the gut to adrenaline | 92, 26*P*, 1938. |
| " | *Passmore, R. and.* The effect of large doses of insulin on the foetal sheep and goat | 92, 459, 1938. |
| " | *Lehmann, H. and.* The action of cell-free muscle extract on insulin | 94, 15*P*, 1938. |
| " | *Blaschko, H. and.* The inactivation of adrenaline by catechol oxidase *in vitro* | 94, 19*P*, 1938. |
| " | *Blaschko, H. and.* The inactivation of adrenaline by phenolases | 98, 130, 1940. |
| Schmitt, F. O. | *and Schmitt, O. H.* Partial excitation and variable conduction in the squid giant axon | 98, 26, 1940. |
| Schmitt, O. H. | A capacitative theory of the local excitatory process in nerve | 92, 38*P*, 1938. |
| " | Late after potentials in nerve | 92, 39*P*, 1938. |
| " | The measurement of nerve impulse velocity | 94, 21*P*, 1938. |
| " | Monophasic action potentials from undamaged nerve | 95, 61*P*, 1939. |
| " | *Downing, A. C., Hill, A. V. and.* Recording pointer-galvanometer, with photoelectric coupling and thermionic amplification, for muscle heat measurement | 95, 62*P*, 1939. |
| " | *Katz, B. and.* Excitability changes in a nerve fibre during the passage of an impulse in an adjacent fibre | 96, 9*P*, 1939. |
| " | *Katz, B. and.* Electric interaction between two adjacent nerve fibres | 97, 471, 1940. |
| " | *Schmitt, F. O. and.* Partial excitation and variable conduction in the squid giant axon | 98, 26, 1940. |
| " | *Pumphrey, R. J., —— and Young, J. Z.* Correlation of local excitability with local physiological response in the giant axon of the squid (*Loligo*) | 98, 47, 1940. |
| " | *Katz, B. and.* A note on interaction between nerve fibres | 100, 369, 1942. |
| Schriever, H. | *Feldberg, W. and.* The acetylcholine content of the cerebro-spinal fluid of dogs | 86, 277, 1936. |
| Schrire, T. | *Mirvish, L., Sacks, G. and.* The absorption of calcium from the gall-bladder | 70, 434, 1930. |
| Schultzer, P. | Mortality of adrenalectomised young rats, with improved technique of operation, and after a period of treatment with cortical hormone | 84, 70, 1935. |
| " | On the biological assay of the cortical hormone by the survival method, in adrenalectomised young rats, and on the influence of the salt content of the hormone extract | 87, 222, 1936. |

| | | |
|---|---|---|
| Schuster, E. H. J. | *Dale, H. H. and.* A double perfusion-pump | 64, 358, 1928. |
| Schütz, F. | (Introduced by J. H. Gaddum.) On the use of perspex to form a surface on which the coagulation of blood is delayed | 100, 5*P*, 1941. |
| Schwabe, H. | *Priestley, J. G. and.* The solubility of acetylene in blood. I. Determination of acetylene dissolved in blood or other liquids | 99, 49, 1940. |
| Schweitzer, A. | Vascular reflexes from the lung | 87, 46*P*, 1936. |
| " | *and Wright, Samson.* Action of adrenaline on the knee jerk | 87, 92*P*, 1936. |
| " | *and Wright, Samson.* Effects on the knee jerk of stimulation of the central end of the vagus and of various changes in the circulation and respiration | 88, 459, 1937. |
| " | *and Wright, Samson.* The action of adrenaline on the knee jerk | 88, 476, 1937. |
| " | *and Wright, Samson.* The action of eserine and related compounds and of acetylcholine on the central nervous system | 89, 165, 1937. |
| " | *and Wright, Samson.* Further observations on the action of acetylcholine, prostigmine and related substances on the knee jerk | 89, 384, 1937. |
| " | *and Wright, Samson.* The anti-strychnine action of acetylcholine, prostigmine and related substances, and of central vagus stimulation | 90, 310, 1937. |
| " | Influence of avertin and urethane anæsthesia on the action of eserine on skeletal muscle | 90, 84*P*, 1937. |
| " | *and Wright, S.* Mode of action of anticholinesterases on the central nervous system (spinal cord) | 92, 6*P*, 1938. |
| " | *and Wright, S.* Action of hordenine compounds on the central nervous system | 92, 422, 1938. |
| " | *and Wright S.* Action of nicotine on the spinal cord | 94, 136, 1938. |
| " | *Stedman, E. and Wright, Samson.* Central action of anticholinesterases | 96, 302, 1939. |
| Scott, C. M. | *Khayyal, M. A. and.* The oxygen consumption of the isolated uterus of the rat and mouse | 72, 13*P*, 1931. |
| Scott, D., Jr. | Strength-duration curves for repetitive stimulation of medullated nerve | 82, 321, 1934. |
| " | *Bayliss, L. E., Cowan, S. L. and.* The action potentials in *Maia* nerve before and after poisoning with veratrine and yohimbine hydrochlorides | 83, 439, 1935. |
| " | *Ledingham, J. M. and.* The spread of the local action potential in the single nerve fibre of the crab | 92, 41*P*, 1938. |
| Scott, D. B. McN. | *Himsworth, H. P. and.* The relation of the hypophysis to changes in sugar tolerance and insulin sensitivity induced by changes of diet | 91, 447, 1938. |
| " | *Himsworth, H. P. and.* The action of Young's glycotropic factor of the anterior pituitary gland | 92, 183, 1938. |

| | | |
|---|---|---|
| Scott, D. B. McN. | *Himsworth, H. P. and.* The action of adrenaline in accelerating the removal of the blood sugar by the peripheral tissues | 93, 159, 1938. |
| Scott, P. | *Hallpike, C. S. and.* Observations on the function of the round window | 99, 78, 1940. |
| Scowen, E. F. | *and Spence, A. W.* The effect of anti-thyrotropic serum on the thyroid gland of guinea-pigs treated with thyrotropin hormone | 86, 109, 1936. |
| Secker, J. | The humoral control of the secretion by the submaxillary gland of the cat following chorda stimulation | 81, 81, 1934. |
| " | The humoral control of the secretion by the submaxillary gland of the cat following sympathetic stimulation | 82, 293, 1934. |
| " | *Burns, D. and.* Action of guanidine salts on the vago-cardiac inhibitory mechanism | 84, 16*P*, 1935. |
| " | Further observations on the secretion by the submaxillary gland of the cat following sympathetic stimulation | 86, 22, 1936. |
| " | The chemical agent of the sympathetic nerve in the membrana nictitans of the cat | 87, 76*P*, 1936. |
| " | *Burns, D. and.* Potentiation of adrenaline activity | 88, 2*P*, 1936. |
| " | The chemical agent in the sympathetic control of retraction of the nictitating membrane of the cat | 89, 296, 1937. |
| " | The suprarenals and the transmission of the activity of the sympathetic nerves of the cat | 94, 259, 1938. |
| " | A note on the suprarenal cortex and the transmission of the activity of the sympathetic nerves of the cat | 95, 282, 1939. |
| " | *Burns, D. and.* Physical fitness of pre-adolescent boys of three soci-economic levels. (A preliminary study) | 98, 2*P*, 1940. |
| Segall, H. N. | *Anrep, G. V. and.* The central and reflex regulation of the heart rate | 61, 215, 1926. |
| Seliškar, A. | The action of ions upon intra-auricular conduction in the tortoise | 61, 172, 1926. |
| " | The action of alcohol upon conduction in the auricle of the tortoise | 61, 294, 1926. |
| Selous, C. F. | *Perryman, P. W. and.* Some physiological and physical aspects of the surface tension of urine | 85, 128, 1935. |
| " | *Perryman, P. W. and.* The influence of hydrogen-ion concentration on the surface tension of some colloidal solutions | 92, 151, 1938. |
| Selye, H. | *Pugsley, L. I. and.* The histological changes in the bone responsible for the action of parathyroid hormone on the calcium metabolism of the rat | 79, 113, 1933. |
| " | *Parkes, A. S. and.* Adrenalectomy of birds | 86, 35*P*, 1936. |
| " | *Browne, J. S. L., Karady, S. and.* The effect of noxious agents on creatine, creatinine, chloride and water excretion | 97, 1, 1939. |

| | | |
|---|---|---|
| Sen, K. C. | *Magee, H. E. and.* The influence of electrolytes on the function of the intestinal mucosa | 75, 433, 1932. |
| Sendroy, J. | *Abelcos, M., Barcroft, J., Cordero, N., Harrison, T. R. and.* The measurement of the oxygen capacity of haemoglobin | 66, 262, 1928. |
| Settle, H. L. | *Macdonald, A. D. and.* Actions of posterior pituitary principles on the colon | 86, 8P, 1935. |
| Shannon, J. A. | *and Winton, F. R.* The renal excretion of inulin and creatinine by the anaesthetized dog and the pump-lung-kidney preparation | 98, 97, 1940. |
| Shapiro, B. G. | An unusual action of the toad's heart shown by its response to creatine | 90, 1P, 1937. |
| ,, | The influence of follicular hormone on urinary secretion in man | 92, 3P, 1938. |
| ,, | The action of creatine and creatinine on the circulatory system | 92, 178, 1938. |
| Shapiro, H. A. | *and Zwarenstein, H.* Effects of progesterone and testosterone on *Xenopus* and on its excised ovary | 89, 38P, 1937. |
| ,, | Apparatus for studying the asphyxiation of nerve at different temperatures | 92, 43P, 1938. |
| Sharpey-Schafer, E. | On functional recovery after severance of cutaneous nerves | 63, viii, 1927. |
| ,, | Relationship between the liver cells and the blood | 67, xl, 1929. |
| ,, | The nomenclature of the autonomic nervous system | 71, 382, 1931. |
| ,, | Normal respiration and the influence of the vagi | 75, 130, 1932. |
| Shaxby, J. H. | *and Jones, Olwen M.* On the colorimetric determination of hydrogen-ion concentration | 61, xxvi, 1926. |
| ,, | The resonance theory of audition: a historical note | 66, xix, 1928. |
| ,, | A rotation viscometer | 68, xiii, 1929. |
| ,, | *Gage, F. H. and.* Modification of speech sounds in passing through acoustic filters | 77, 16P, 1932. |
| ,, | *Gage, F. H. and.* The regions of greatest energy in the production of vowel sounds. (Demonstration) | 77, 18P, 1932. |
| ,, | A differential viscometer | 91, 19P, 1937. |
| ,, | A simple adaptation photometer | 91, 20P, 1937. |
| Sheehan, D. | *and Stopford, J. S. B.* Nerve endings in Pacinian bodies | 73, 1P, 1931. |
| ,, | *Beattie, J. and.* The effects of hypothalamic stimulation on gastric motility | 81, 218, 1934. |
| ,, | The effect of cortical stimulation on gastric movements in the monkey | 83, 177, 1934. |
| ,, | *Hoff, E. C., Hoff, H. E. and.* Reflex interruptions of rhythmic discharge | 83, 185, 1934. |
| Sheehan, H. L. | The deposition of dyes in the mammalian kidney | 72, 201, 1931. |
| ,, | *Dunn, J. S., Kay, W. W. and.* The elimination of urea by the mammalian kidney | 73, 371, 1931. |
| ,, | The renal circulation rate in the rabbit | 74, 214, 1932. |

| | | |
|---|---|---|
| Sherman, H. L. | *Kay, W. W. and.* The renal elimination of injected uric acid creatinine | 79, 359, 1933. |
| ,, | *and Southworth, H.* The renal elimination of phenol red | 82, 438, 1934. |
| ,, | The renal elimination of phenol red in the dog | 87, 237, 1936. |
| Shen, T. C. | The effect of experimental anaemia on the size of the spleen | 66, 74, 1928. |
| ,, | *Adair, G. S., Cordero, N. and.* The effect of temperature on the equilibrium of carbon dioxide and blood and the heat of ionization of haemoglobin | 67, 288, 1929. |
| Shen, T. C. R. | The role of hypophysis in the pharmacological actions upon the melanophores of frogs (*Rana temporaria*) | 90, 51P, 1937. |
| ,, | The site of the stimulating action of several drugs upon the melanophore hormone secretion from the hypophysis of frogs | 95, 47P, 1939. |
| ,, | The role of light in the action of several drugs upon the hypophyseal melanophore hormone secretion of frogs (*Rana temporaria*) | 96, 15P, 1939. |
| Sherif, M. | *McGeorge, M., —— and Smirk, F. H.* Observations on the properties of S-methyl iso-thiourea sulphate, with particular reference to the circulatory effects | 100, 474, 1942. |
| Sherif, M. A. F. | The chemical transmitter of the sympathetic nerve to the uterus | 85, 298, 1935. |
| Sherrington, C. S. | A mammalian myograph | 66, III, 1928. |
| ,, | *Denny-Brown, D. E. and.* Subliminal fringe in spinal flexion | 66, 175, 1928. |
| ,, | *Eccles, J. C. and.* Reflex summation in the ipsilateral spinal flexion reflex | 69, 1, 1930. |
| ,, | *Eccles, J. C. and.* Improved bearing for the torsion myograph | 69, I, 1929. |
| ,, | Notes on the knee extensor and the mirror myograph | 70, 101, 1930. |
| ,, | *Eccles, J. C. and.* Flexor reflex responses to successive afferent volleys. (Preliminary communication) | 70, xxv, 1930. |
| ,, | *Fulton, J. F. and.* State of the flexor reflex in paraplegic dog and monkey respectively | 75, 17, 1932. |
| ,, | Chromatolysis of motor-horn cells | 75, 11P, 1932. |
| ,, | *Cooper, Sybil and.* Degeneration of peripheral nerves after spinal transection in the monkey | 77, 18P, 1932. |
| Shutt, W. J. | *Harris, I., Rubin, E. L. and.* Modifications in the use of the glass electrode for the determination of the *p*H of venous blood | 81, 147, 1934. |
| Sidki, Y. | The effect of thyroid and anterior pituitary on the thyroid and testis of the rat | 75, 30P, 1932. |
| Silman, H. | *Huggett, A. St G. and.* The anticoagulant action of chlorazol | 74, 9P, 1932. |
| Simmons, H. T. | *and Whitehead, R.* The technique of suprarenalectomy in the guinea-pig, and the survival period and cause of death of guinea-pigs after bilateral suprarenalectomy | 88, 235, 1936. |

| | | |
|---|---|---|
| Simpson, B. W. | *Irving, J. T. and.* The influence of low iodine diets on the thyroid gland of rats | 95, 52*P*, 1939. |
| Simpson, J. V. A. | *Lamb, F. W. and.* Assessment of schoolboys by air force tests | 65, xiv, 1928. |
| Simpson, W. W. | *and Macleod, J. J. R.* The immediate products of post-mortem glycogenolysis in mammalian muscle and liver | 64, 255, 1927. |
| Sims, A. L. | *Hemingway, A. and.* A one-screw-fixing boss head | 77, 15*P*, 1932. |
| Sinclair, H. M. | The effect of vitamin $B_1$ upon the respiratory quotient of brain. (Preliminary communication) | 79, 6*P*, 1933. |
| " | *Goodhart, R. S. and.* Cocarboxylase (vitamin $B_1$ diphosphate) in blood | 95, 57*P*, 1939. |
| " | Metabolism of vitamin $B_1$ | 96, 55*P*, 1939. |
| Singer, E. | *Rowlands, I. W. and.* Gonadotropic activity of the pituitaries of vitamin E deficient rats | 86, 323, 1936. |
| " | Effects of vitamin E deficiency on the thyroid gland of the rat | 87, 287, 1936. |
| Singh, I. | Intravenous injection of oxygen with the animal under ordinary and increased atmospheric pressure | 84, 315, 1935. |
| " | Certain effects of pulmonary gas embolism | 87, 11, 1936. |
| " | The inorganic constitution of the anterior retractor of the byssus of *Mytilus edulis* | 89, 13*P*, 1936. |
| " | The effect of cyanide on the retractor of the byssus of *Mytilus edulis* | 89, 54*P*, 1937. |
| " | Factors affecting the sodium, potassium and total base content of the anterior retractor of the byssus of *Mytilus edulis* | 91, 398, 1938. |
| " | The effect of the interaction of ions, drugs and electrical stimulation as indicated by contraction of the anterior retractor of the byssus of *Mytilus edulis* | 92, 62, 1938. |
| " | Isotonic extension and shortening of the anterior retractor of the byssus of *Mytilus edulis* | 92, 232, 1938. |
| " | The effect of adaptation to electrical and chemical stimulation on the excitability of the anterior retractor of the byssus of *Mytilus edulis* | 92, 241, 1938. |
| " | Properties of tonic contractions produced by electrical stimulation of the anterior retractor of the byssus of *Mytilus edulis* | 94, 1, 1938. |
| " | The effect of calcium and some other factors on the excitability of the anterior retractor of the byssus of *Mytilus edulis* | 94, 322, 1938. |
| " | The effect of stretching and of stimulation on the weight, total base and sodium concentration of the anterior retractor of the byssus of *Mytilus edulis* | 96, 1, 1939. |
| " | A comparative study of the effect of the interaction of ions, drugs and electrical stimulation as indicated by contraction of unstriated muscle | 96, 367, 1939. |

| | | |
|---|---|---|
| Singh, I. | *and Rao, M. S.* The effect of temperature on the mechanical response and the viscosity and oxygen consumption of unstriated muscle | 98, 12, 1940. |
| ,, | The effect of the interaction of ions, drugs and electrical stimulation as indicated by the contraction of mammalian unstriated muscle | 98, 155, 1940. |
| Sjöstrand, T. | Potential changes in the cerebral cortex of the rabbit arising from cellular activity and the transmission of impulses in the white matter | 90, 41*P*, 1937. |
| Skládal, J. | (Introduced by E. D. Adrian.) Physiology of sudden expiration | 100, 15*P*, 1941. |
| Smart, W. A. M. | A simple slide rule for the calculation of respiratory quotients | 64, ix, 1927. |
| ,, | *Gordon-Wilson, C., —— and Smith, F. Campbell.* A photo-electric haemoglobinometer | 69, xxii, 1930. |
| ,, | A simple type of photoelectric haemoglobinometer | 71, x, 1931. |
| ,, | *Cunningham, J. T. and.* The relation of corpora lutea to gestation and anterior pituitary in some lower vertebrates | 80, 4*P*, 1933. |
| Smellie, A. R. | An improved type of pump for artificial respiration | 68, 190, 1929. |
| ,, | *McCall, J. and.* A modified Krogh's bicycle ergometer | 72, 405, 1931. |
| Smirk, F. H. | Changes in the blood composition of unanaesthetized rabbits following the ingestion of water and saline. With special reference to the distribution of fluid between plasma and corpuscles and to the relationship between blood composition and diuresis | 75, 81, 1932. |
| ,, | *Heller, H. and.* Studies concerning the alimentary absorption of water and tissue hydration in relation to diuresis | 76, 1, 1932. |
| ,, | *Heller, H. and.* Studies concerning the alimentary absorption of water and tissue hydration in relation to diuresis | 76, 283, 1932. |
| ,, | The rate of water absorption in man and the relationship of the water load in tissues to diuresis | 78, 113, 1933. |
| ,, | The effect of water drinking on the blood composition of human subjects in relation to diuresis | 78, 127, 1933. |
| ,, | The influence of posterior pituitary hormone on the absorption and distribution of water in man | 78, 147, 1933. |
| ,, | *Newton, W. H. and.* The effect of the intravenous administration of water upon the rate of urine formation | 78, 451, 1933. |
| ,, | A method for determining in animals the alimentary absorption time for water, the abdomen remaining intact | 81, 167, 1934. |
| ,, | *Newton, W. H. and.* The pituitary gland in relation to polyuria and to water diuresis | 81, 172, 1934. |

| | | |
|---|---|---|
| Smith, F. H. | *Baldes, E. J. and.* The effect of water drinking, mineral starvation and salt administration on the total osmotic pressure of the blood in man, chiefly in relation to the problems of water absorption and water diuresis | 82, 62, 1934. |
| ,, | *Alam, M. and.* Observations in man upon a blood pressure raising reflex arising from the voluntary muscles | 89, 372, 1937. |
| ,, | *Alam, M. and.* Observations in man on a pulse-accelerating reflex from the voluntary muscles of the legs | 92, 167, 1938. |
| ,, | *McGeorge, M., Sherif, M. and.* Observations on the properties of S-methyl iso-thiourea sulphate, with particular reference to the circulatory effects | 100, 474, 1942. |
| Smith, A. F. | *Black, D. A. K., Powell, J. F. and.* Inulin and perabrodil clearance after alimentary haemorrhage in man | 99, 344, 1941. |
| Smith, C. G. | *and Solandt, D. Y.* The relation of contracture to the increment in the resting heat production of muscle under the influence of potassium | 93, 305, 1938. |
| Smith, E. C. Bath | *Raper, H. S. and.* Insulin and the production of acetone bodies by the perfused liver | 62, 17, 1926. |
| ,, | The buffering of muscle in rigor; protein, phosphate and carnosine | 92, 336, 1938. |
| ,, | Changes in elasticity of mammalian muscle undergoing rigor mortis | 96, 176, 1939. |
| Smith, Elizabeth R. B. | *Ferguson, J. H., McGavran, Joyce and.* Pilocarpine and gastric anacidity in monkeys | 82, 1, 1934. |
| ,, | *Ferguson, J. H. and.* The effects of acetyl-β-methyl choline on the gastric acidity of monkeys | 83, 455, 1935. |
| Smith, F. Campbell | The ultra-violet absorption spectra of cerebro-spinal fluids. (Preliminary note) | 62, xxv, 1927. |
| ,, | A simple method for the ultrafiltration of undiluted blood serum | 65, xii, 1928. |
| ,, | *Gordon-Wilson, C., Smart, W. A. M. and.* A photo-electric haemoglobinometer | 69, xxii, 1930. |
| Smith, W. | The action of insulin on liver diastase | 62, iii, 1926. |
| Smyth, D. H. | Chronic experiments on the influence of the carotid sinus on the respiration of the rabbit | 87, 70P, 1936. |
| ,, | The study of the carotid sinus respiratory reflexes by means of chronic experiments | 88, 425, 1937. |
| ,, | The central and reflex control of respiration in the frog | 95, 305, 1939. |
| ,, | A haemoglobin-saline perfusion solution | 100, 18P, 1942. |
| Snodgrass, S. R. | *Doupe, J., Krynauw, R. A. and.* Some factors influencing venous pressure in man | 92, 383, 1938. |
| Snook, L. C. | *Fraser, A. H. H., Godden, W., —— and Thomson, W.* The influence of diet upon ketonaemia in pregnant ewes | 94, 346, 1938. |

| | | |
|---|---|---|
| SNOOK, L. C. | *Fraser, A. H. H., Godden, W., —— and Thomson, W.* Ketonaemia in pregnant ewes and its possible relation to pregnancy disease | 97, 120, 1939. |
| " | Fatty infiltration of the liver in pregnant ewes | 97, 238, 1939. |
| SOLANDT, D. Y. | *Hill, A. V. and.* 'Accommodation' in nerve | 84, 1P, 1935. |
| " | *Hill, A. V. and.* Nerve excitation by alternating current | 84, 2P, 1935. |
| " | The effect of potassium on the excitability and on the resting metabolism of muscle | 84, 3P, 1935. |
| " | *Irving, L., —— and Solandt, O. M.* Nerve impulses from branchial pressure receptors in the dogfish | 84, 187, 1935. |
| " | Measurement of human nerve 'accommodation' | 85, 5P, 1935. |
| " | The effect of potassium on the excitability and resting metabolism of frog's muscle | 86, 162, 1936. |
| " | *Smith, C. G. and.* The relation of contracture to the increment in the resting heat production of muscle under the influence of potassium | 93, 305, 1938. |
| SOLANDT, O. M. | *Irving, L., Solandt, D. Y. and.* Nerve impulses from branchial pressure receptors in the dogfish | 84, 187, 1935. |
| " | *Cowan, C. R. and.* The duration of the recovery period following strenuous muscular exercise, measured to a base line of steady, mild exercise | 89, 462, 1937. |
| " | *Feldberg, W. and.* The stimulating effect of glucose and pyruvate on the rabbit's gut | 98, 22P, 1940. |
| SOSKIN, S. | *Corkill, A. B., Marks, H. P. and.* The effects of sympathetic stimulation and of adrenaline on muscle glycogen | 83, 26, 1934. |
| SOUTHGATE, B. A. | *Magee, H. E. and.* A method for determining the effect of electrolytes in the lumen of the surviving gut on its movements. (Preliminary communication) | 65, VII, 1928. |
| " | *Magee, H. E. and.* Influence on intestinal movements of electrolytes in the lumen of isolated segments | 68, 67, 1929. |
| SOUTHWORTH, H. | *Sheehan, H. L. and.* The renal elimination of phenol red | 82, 438, 1934. |
| SOUZA, D. DE | *and Hocking, F. D. M.* The hypercoagulability of the blood due to intramuscular injection of sodium citrate | 83, 49, 1934. |
| " | *and Hocking, F. D. M.* Effects of sodium citrate on the alkali reserve and coagulability of the blood | 85, 168, 1935. |
| " | *and Hocking, F. D. M.* Changes in the coagulability of the blood produced by citric acid and some of its decomposition products | 85, 173, 1935. |
| SPENCE, A. W. | *Scowen, E. F. and.* The effect of antithyrotropic serum on the thyroid gland of guinea-pigs treated with thyrotropic hormone | 86, 109, 1936. |

| | | |
|---|---|---|
| Sperry, Warren M. | *Andersen, Dorothy H. and.* A study of cholesterol in the adrenal gland in different phases of reproduction in the female rat | 90, 296, 1937. |
| Spradlin, M. C. | *Hamilton, W. F., —— and Soam, H. G., Jr.* The $CO_2$ of the mixed venous blood of man | 70, 244, 1930. |
| Spurrell, W. R. | *Poulton, E. P., —— and Warner, E. C.* A method of measuring directly the total and partial pressures of the gases in blood | 61, 232, 1926. |
| " | *Poulton, E. P., —— and Warner, E. C.* A convenient form of closed-circuit respiratory apparatus for measuring simultaneously the carbon dioxide output and the oxygen intake over short or long periods | 67, 423, 1929. |
| " | The part played by venous obstruction in the development of a collateral circulation | 68, viii, 1929. |
| " | *McSwiney, B. A. and.* The gastric fibres of the vagus nerve | 77, 447, 1933. |
| " | *McSwiney, B. A. and.* The emptying time of the stomach for hypotonic meals | 78, 28*P*, 1933. |
| " | *McSwiney, B. A. and.* The outline method for investigating gastric motility | 79, 423, 1933. |
| " | *McSwiney, B. A. and.* Influence of osmotic pressure upon the emptying of the stomach | 79, 437, 1933. |
| " | *McSwiney, B. A. and.* The effect of fat on gastric motility | 84, 41, 1935. |
| " | Duodenal reflexes | 84, 4*P*, 1935. |
| " | *Raza, S. H. and.* Some characteristics of the action of urine upon amphibian melanophores | 90, 429, 1937. |
| " | *McKeown, T. and.* The results of adrenalectomy in the pregnant albino rat | 98, 255, 1940. |
| Squires, B. T. | The ultra-violet fluorescence of urine | 66, xiv, 1928. |
| Stachy, R. S. | *Anrep, G. V. and.* Comparative effect of various drugs upon the coronary circulation | 64, 187, 1927. |
| Stammers, A. D. | The blood count and body temperature in normal rats | 61, 329, 1926. |
| " | An automatic contact breaker | 68, x, 1929. |
| " | The polymorphonuclear-lymphocyte ratio at an altitude of 5750 ft. | 78, 335, 1933. |
| " | Oxygen content, capacity and percentage saturation in arterial blood at Johannesburg (altitude 5750 ft.) | 78, 21*P*, 1933. |
| Starling, E. H. | *Babkin, B. P. and.* A method for the study of the perfused pancreas | 61, 245, 1926. |
| " | An improved method of artificial respiration | 61, xiv, 1926. |
| " | *Gremels, H. and.* On the influence of hydrogen ion concentration and of anoxaemia upon the heart volume | 61, 297, 1926. |
| " | *and Visscher, M. B.* The regulation of the energy output of the heart | 62, 243, 1927. |
| " | *Bayliss, L. E., Müller, E. A. and.* The action of insulin and sugar on the respiratory quotient and metabolism of the heart-lung preparation | 65, 33, 1928. |

| | | |
|---|---|---|
| Startup, C. W. | *Cruickshank, E. W. H. and.* The utilization of sugar by the lungs | 70, v, 1930. |
| " | *Cruickshank, E. W. H. and.* The effect of insulin on the respiratory quotient, oxygen consumption, sugar utilisation, and glycogen synthesis in the normal mammalian heart in hyper- and hypoglycaemia | 77, 365, 1933. |
| " | *Cruickshank, E. W. H. and.* The respiratory quotient, oxygen consumption and glycogen content of the mammalian heart in aglycaemia | 80, 179, 1933. |
| " | *Cruickshank, E. W. H. and.* The action of insulin on the R.Q. oxygen utilization, $CO_2$ production and sugar utilization in the mammalian diabetic heart | 81, 153, 1934. |
| " | *Cruickshank, E. W. H., MacDonald, Ian and.* The effect of insulin aglycaemia upon the amino-acid utilization of the mammalian heart. (Preliminary communication) | 82, 18P, 1934. |
| " | *Peterson, J. M. and.* The hyperglycaemic response to transection of the mid-brain | 91, 21P, 1937. |
| Stedman, E. | (Introduced by G. Barger.) The choline esterase content of blood in myasthenia gravis | 84, 56P, 1935. |
| " | *and Stedman, Ellen.* The formation of acetylcholine by brain tissue | 89, 37P, 1937. |
| " | *Schweitzer, A., —— and Wright, Samson.* Central action of anticholinesterases | 96, 302, 1939. |
| Stedman, Ellen | *Stedman, E. and.* The formation of acetylcholine by brain tissue | 89, 37P, 1937. |
| Steele, A. G. | *and Windle, W. F.* The oxygen and carbon dioxide content of the blood of normal and pregnant decerebrate cats | 94, 525, 1939. |
| " | *and Windle, W. F.* Some correlations between respiratory movements and blood gases in cat foetuses | 94, 531, 1939. |
| Steggerda, F. R. | *Nisimaru, Y. and.* Observations on the structure and function of certain blood vessels in the spleen | 74, 327, 1932. |
| " | *Barcroft, J., Nisimaru, Y. and.* The effects of intestinal rhythm on general blood-pressure | 74, 490, 1932. |
| " | *Barcroft, J. and.* Observations on the proximal portion of the exteriorized colon | 76, 460, 1932. |
| Stein, L. | *Mirski, A., Rosenbaum, I., —— and Wertheimer, E.* On the behaviour of glycogen after diets rich in protein and in carbohydrate | 92, 48, 1938. |
| " | *Tuerkischer, E. and Wertheimer, E.* The regulation of glyconeogenesis | 95, 356, 1939. |
| Stella, G. | The concentration and diffusion of inorganic phosphate in living muscle | 66, 19, 1928. |
| " | The combination of carbon dioxide with muscle: its heat of neutralization and its dissociation curve | 68, 49, 1929. |
| " | The combination of carbon dioxide with muscle | 68, xviii, 1929. |

| | | |
|---|---|---|
| Stella, G. | The oxygen consumption of the tortoise heart: its dependence upon diastolic volume and on the mechanical conditions of systole | 72, 247, 1931. |
| " | The part played by the Thebesian vessels in the blood supply to the heart | 73, 36, 1931. |
| " | Some observations on the effect of pressure in the carotid sinus upon the arterial pressure and upon the coronary circulation | 73, 45, 1931. |
| " | Further observations on the function of the Thebesian vessels in the mammalian heart | 75, 18*P*, 1932. |
| " | The dynamics of the ventricular contraction of the tortoise heart | 76, 4*P*, 1932. |
| " | Adrenaline and reflex excitability of the cardio-inhibitory centres. (Preliminary communication) | 76, 7*P*, 1932. |
| " | The action of adrenaline upon the cardiac vagus centres | 77, 68, 1932. |
| " | Afferent impulses from the bladder of the frog | 82, 22*P*, 1934. |
| " | *Bogue, J. Yule and.* Impulses in the carotid sinus nerve | 82, 23*P*, 1934. |
| " | *Hammouda, M. and.* Afferent impulses in the pulmonary vagus | 83, 10*P*, 1934. |
| " | *Bogue, J. Yule and.* Afferent impulses in the carotid sinus nerve (nerve of Hering) during asphyxia and anoxaemia | 83, 459, 1935. |
| " | *Samaan, A. and.* The stimulating action of nicotine and cyanide on the chemical receptors of the carotid sinus | 85, 7*P*, 1935. |
| " | *Samaan, A. and.* The response of the chemical receptors of the carotid sinus to the tension of $CO_2$ in the arterial blood in the cat | 85, 309, 1935. |
| " | Respiratory failure following denervation of the carotid sinus | 87, 48*P*, 1936. |
| " | Afferent discharges in the depressor nerve | 87, 78*P*, 1936. |
| " | On the mechanism of production and the physiological significance of 'apneusis' | 93, 10, 1938. |
| " | The dependence of the activity of the 'apneustic' centre on the carbon dioxide of the arterial blood | 93, 263, 1938. |
| " | The reflex response of the 'apneustic' centre to stimulation of the chemo-receptors of the carotid sinus | 95, 365, 1939. |
| " | On the connexions between the 'pneumotaxic' and 'apneustic' centres | 96, 24*P*, 1939. |
| " | The effect of cerebellum on respiration | 96, 26*P*, 1939. |
| Stephens, J. G. | *Barcroft, J. and.* Observations upon the size of the spleen | 64, 1, 1927. |
| " | *Barcroft, J. and.* The effect of pregnancy and menstruation on the size of the spleen | 66, 32, 1928. |
| " | The spleen and the surface of red corpuscles | 92, 39*P*, 1938. |
| " | Concentration and sedimentation rates of blood from the splenic artery and vein | 94, 411, 1938. |
| " | Prolongation of red cell life by the spleen | 95, 92, 1939. |
| " | Size of the spleen in relation to blood sedimentation rate | 95, 132, 1939. |
| " | Surface and fragility differences between mature and immature red cells | 99, 30, 1940. |

| | | |
|---|---|---|
| Stephens, J. G. | Effects of vaso-dilator and vaso-constrictor substances on normal and denervated spleens | 99, 127, 1940. |
| Steven, D. M. | *Dow, D. J. and.* An investigation of simple methods for diagnosing vitamin A deficiency by measurements of dark adaptation | 100, 256, 1941. |
| Stewart, C. P. | *Clark, A. J., Percival, G. H. and.* Action of calcium ions on the frog's heart | 66, 346, 1928. |
| " | *Clark, A. J., Gaddie, R. and.* The metabolism of the frog's isolated heart | 70, vii, 1930. |
| " | *Clark, A. J., Gaddie, R. and.* The metabolism of the isolated heart of the frog | 72, 443, 1931. |
| " | *Clark, A. J., Gaddie, R. and.* The carbohydrate metabolism of the isolated heart of the frog | 75, 311, 1932. |
| " | *Clark, A. J., Gaddie, R. and.* The anaerobic activity of the isolated frog's heart | 75, 321, 1932. |
| " | *Clark, A. J., Gaddie, R. and.* The influence of oxygen pressure on the metabolism of the isolated cold-blooded heart | 77, 432, 1933. |
| " | *Gaddie, R. and.* The anaerobic breakdown of carbohydrate in the isolated ventricle of the frog | 80, 457, 1934. |
| " | *Clark, A. J., Gaddie, R. and.* Asphyxial arrest of the isolated frog's ventricle | 82, 265, 1934. |
| " | *Clark, A. J., Gaddie, R. and.* The aerobic metabolism of the isolated frog's heart poisoned by iodoacetic acid | 90, 335, 1937. |
| " | *Loudon, A. G. R., McKail, R. A., Ras, S. L., —— and Wilson, W. C.* Changes in sodium and in other constituents of blood and extracellular fluids following scalds | 96, 27*P*, 1939. |
| " | Experiments with the dark adaptation test | 96, 28*P*, 1939. |
| Stewart, D. | *Lewinsky, W. and.* Nerve fibres of the odontogenetic layer of the dentine | 93, 23*P*, 1938. |
| " | *King, J. D., Lewinsky, W. and.* Degenerative changes in the axis cylinders of the dental nerves, due to diets deficient in vitamin A and carotene | 93, 206, 1938. |
| Stewart, H. C. | *Frazer, A. C. and.* Ultramicroscopic particles in normal serum | 87, 53*P*, 1936. |
| " | *Frazer, A. C. and.* Relation of intestinal absorption to serum particle counts | 87, 72*P*, 1936. |
| " | *Frazer, A. C. and.* Ultramicroscopic particles in normal human blood | 90, 18, 1937. |
| " | *Frazer, A. C. and.* The composition of ultramicroscopic particles in human blood | 90, 31*P*, 1937. |
| " | *Frazer, A. C. and.* Inactivation of cobra venom by adsorption | 94, 17*P*, 1938. |
| " | *Frazer, A. C. and.* Evidence of fat/fatty acid partition in human fat absorption | 94, 24*P*, 1938. |
| " | *Frazer, A. C. and.* Secondary protection of soap-stabilized oil-in-water emulsion by protein | 95, 5*P*, 1939. |
| " | *Frazer, A. C. and.* The behaviour of chylomicrons compared with that of protein-protected soap-stabilized oil-in-water emulsions | 95, 7*P*, 1939. |

| | | |
|---|---|---|
| Stewart, H. C. | *Fraser, A. C. and.* Chylomicrograph technique | 95, 21P, 1939. |
| " | *Fraser, A. C. and.* The interpretation of the normal chylomicrograph | 95, 23P, 1939. |
| " | *Elkes, J. J., Fraser, A. C. and.* The composition of particles seen in normal human blood under dark-ground illumination | 95, 68, 1939. |
| " | The effect of fat on agglutinin titre | 99, 1P, 1941. |
| Stewart, W. K. | *Carmichael, E. A., Honeyman, W. M., Kolb, L. C. and.* A physiological study of the skin resistance response in man | 99, 329, 1941. |
| " | *Carmichael, E. A., Honeyman, W. M., Kolb, L. C. and.* Peripheral conduction rate in the sympathetic nervous system of man | 99, 338, 1941. |
| Stoker, S. B. | Coagulation time of normal human blood | 82, 8P, 1934. |
| Stopford, J. S. B. | *Sheehan, D. and.* Nerve endings in Pacinian bodies | 73, 1P, 1931. |
| Strangeways, W. I. | Precipitin tests and anti-prolactin serum | 93, 47P, 1938. |
| Sturdy, R. S. | *Craik, K. J. W., Rawdon-Smith, A. F. and.* Note on the effect of A.C. on the human ear | 90, 3P, 1937. |
| " | *Craik, K. J. W., Rawdon-Smith, A. F. and.* The transient response of a primitive ear | 96, 18P, 1939. |
| Stürup, G. | *Bolton, B., Carmichael, E. A. and.* Vasoconstriction following deep inspiration | 86, 83, 1936. |
| Subrahmanyan, V. | *Fisher, R. B. and.* The diffusion of chloride and glucose into frog muscle | 97, 233, 1939. |
| Suffolk, S. F. | *Harper, A. A., McSwiney, B. A. and.* Afferent fibres from the abdomen in the vagus nerves | 85, 267, 1935. |
| " | *Bain, W. A. and.* On the inactivation of adrenaline *in vitro* | 86, 34P, 1936. |
| " | *Bain, W. A., Gaunt, W. E. and.* The inactivation of adrenaline by blood *in vitro* | 87, 8P, 1936. |
| " | *Irving, J. T., McSwiney, B. A. and.* Afferent fibres from the stomach and small intestine | 89, 407, 1937. |
| " | *Bain, W. A., Gaunt, W. E. and.* Observations on the inactivation of adrenaline by blood and tissues *in vitro* | 91, 233, 1937. |
| " | *McSwiney, B. A. and.* Segmental distribution of certain visceral afferent neurones of the pupillo-dilator reflex in the cat | 93, 104, 1938. |
| " | *Mellanby, J. and.* Experimental oligocythaemia and splenomegaly | 96, 74, 1939. |
| Sun, T. P. | *and MacOwan, Marion M.* Changes in parathyroid and adrenal glands and in blood calcium in relationship to egg formation in fowls | 70, IV, 1930. |
| Supniewski, J. V. | The action of visible light on the haematoporphyrin sensitised organs | 64, 30, 1927. |
| Surie, E. M. | *Mellanby, E., —— and Harrison, D. C.* The antirachitic effect of ergot | 65, XXIX, 1928. |
| Svirbely, J. L. | *Annau, E., Huszák, St., —— and Szent-Györgyi, A.* The function of the adrenal medulla | 76, 181, 1932. |
| Syllaba, G. | *Harrison, T. R., Robinson, C. S. and.* The effect of muscular exercise on the oxygen capacity of the blood of man | 67, 62, 1929. |

| | | |
|---|---|---|
| Szabuniewicz, B. | A note on the recovery heat of frog's muscle at high temperature | 82, 278, 1934. |
| Szilőczky, J. | *Gibbs, O. S. and.* Humoral transmission and the chorda tympani | 76, 15P, 1932. |
| Szent-Györgyi, A. | *Drury, A. N. and.* The influence upon the heart of a substance present in heart muscle and other tissues | 67, xiv, 1929. |
| ,, | *Florey, H., —— and Florey, M. E.* Methods for testing for the presence of adrenal cortex hormone | 67, 343, 1929. |
| ,, | *and Drury, A. N.* The influence upon the heart of substances related to nucleic acid | 67, xxxv, 1929. |
| ,, | *Drury, A. N. and.* The physiological activity of adenine compounds with especial reference to their action upon the mammalian heart | 68, 213, 1929. |
| ,, | *Annau, E., Huszák, St, Svirbely, J. L. and.* The function of the adrenal medulla | 76, 181, 1932. |
| Tainter, M. L. | *Burn, J. H. and.* An analysis of the effect of cocaine on the actions of adrenaline and tyramine | 71, 169, 1931. |
| ,, | *Morton, M. C. and.* Effects of sympathomimetic amines on perfused blood vessels | 98, 263, 1940. |
| Tait, J. | *and Elvidge, A. R.* Effect upon platelets and on blood coagulation of injecting foreign particles into the blood stream | 62, 129, 1926. |
| Talaat, M. | The effect of ions on the cutaneous sensory endings of the frog | 79, 500, 1933. |
| ,, | *Barcroft, J., Elliott, R. H. E., Fraser, F. R., Herkel, W., Matthews, B. H. C. and.* A case of deficient acclimatization to low oxygen pressure | 82, 369, 1934. |
| ,, | *Barcroft, J., Elliott, R. H. E., Flezner, L. B., Hall, F. G., Herkel, W., McCarthy, E. F., McClurkin, T. and.* Conditions of foetal respiration in the goat | 83, 192, 1934. |
| ,, | *Anrep, G. V., Ayadi, M. S. and.* A method for determination of carbon dioxide applicable to blood and tissues | 86, 153, 1936. |
| ,, | *Anrep, G. V., Barsoum, G. S. and.* Histamine destruction by the kidney | 86, 55P, 1936. |
| ,, | *Anrep, G. V., Barsoum, G. S. and.* Liberation of histamine by the heart muscle | 86, 431, 1936. |
| ,, | Afferent impulses in the nerves supplying the urinary bladder | 89, 1, 1937. |
| ,, | *Alam, M., Anrep, G. V., Barsoum, G. S., —— and Wieninger, E.* Liberation of histamine from the skeletal muscle by curare | 95, 148, 1939. |
| ,, | *Anrep, G. V., Barsoum, G. S., —— and Wieninger, E.* Determination of histamine in blood | 95, 476, 1939. |
| ,, | *Anrep, G. V., Barsoum, G. S., —— and Wieninger, E.* Effect of clotting and of addition of histamine on its distribution in blood | 96, 130, 1939. |

| | | |
|---|---|---|
| Talaat, M. | *Anrep, G. V., Barsoum, G. S., —— and Wenninger, E.* Further observations upon the release of histamine by skeletal muscles | 96, 240, 1939. |
| Talbott, J. H. | *Bock, A. V., Dill, D. B. and.* Studies in muscular activity. I. Determination of the rate of circulation of blood in man at work | 66, 121, 1928. |
| " | *Bock, A. V., Dill, D. B., Edwards, H. T., Henderson, L. J. and.* On the partial pressures of oxygen and carbon dioxide in arterial blood and alveolar air | 68, 277, 1929. |
| " | *Dill, D. B., —— and Edwards, H. T.* Studies in muscular activity. VI. Response of several individuals to a fixed task | 69, 267, 1930. |
| " | *Dill, D. B., Edwards, H. T., Folling, A., Oberg, S. A., Puppenheimer, A. M., Jr. and.* Adaptations of the organism to changes in oxygen pressure | 71, 47, 1931. |
| " | *Dill, D. B., Edwards, H. T. and.* Studies in muscular activity. VII. Factors limiting the capacity for work | 77, 49, 1932. |
| Tansley, Katherine | *Lythgoe, R. J. and.* A photographic method for the estimation of coloured solutions with special reference to visual purple | 68, 45, 1929. |
| " | The regeneration of visual purple: its relation to dark adaptation and night blindness | 71, 442, 1931. |
| " | The staining of the light- and dark-adapted retina | 84, 34P, 1935. |
| " | *Glücksmann, A. and.* The formation of an additional fibre layer in the developing rat retina after γ-radiation | 87, 1P, 1936. |
| " | *Bourne, Margherita C., Campbell, Dorothy R. and.* Rhabdonecrosis (retinitis pigmentosa) in the rat | 93, 24P, 1938. |
| Taquini, A. C. | *Fasciolo, J. C., Houssay, B. A. and.* The blood-pressure raising secretion of the ischaemic kidney | 94, 281, 1938. |
| Tawastsjerna, M. | *André, M., Barzin, J., Charlier, R., Daubrebande, L., Demanez, L. and.* Influence of prolonged and repeated inhalations of carbonic acid on the blood and diuresis | 90, 74P, 1937. |
| Taylor, H. | The hydrogen-ion concentration of blood corpuscles | 63, 343, 1927. |
| " | The respiratory movements in gradual hydrocyanic acid poisoning | 69, 124, 1930. |
| " | *and Taylor, N. B.* Action currents in certain muscles of expiration | 71, vii, 1931. |
| " | *and Wiesner, B. P.* Experiments on the temperature coefficient of heart activity | 75, 36P, 1932. |
| " | *Robson, J. M. and.* Some factors affecting the development of the testis | 75, 37P, 1932. |
| Taylor, H. J. | *Campbell, J. Argyll and.* A modification of Krogh's micro-method of gas analysis | 84, 219, 1935. |
| " | *Hill, L. and.* The effect of the high-frequency field on the frog heart and muscle nerve preparation | 90, 33P, 1937. |
| " | *Hill, L. and.* Action of the galvanic current on the skin | 90, 93P, 1937. |

| | | |
|---|---|---|
| TAYLOR, N. B. | , *Branion, H. D. and Kay, H. D.* Some effects of the administration of excessive doses of irradiated ergosterol to normal and to parathyroidectomised dogs | 69, XXXV, 1930. |
| " | The relation of temperature to heart rate in the South African frog (*Xenopus dactylethra*) | 70, XL, 1930. |
| " | *H. Taylor and.* Action currents in certain muscles of expiration | 71, VII, 1931. |
| " | The relation of temperature to the heart rate of the South African frog (*Xenopus dactylethra*) | 71, 158, 1931. |
| TAYLOR, W. W. | A method of determining free and bound water | 67, XXXIX, 1929. |
| TEORELL, T. | Remarks concerning ionic distribution during membrane diffusion | 78, 11P, 1933. |
| " | On the primary acidity of the gastric juice | 97, 308, 1940. |
| TERROUX, KATHLEEN GODWIN | The isoelectric point of sheep oxyhaemoglobin determined by titration curves with the glass electrode | 71, 323, 1931. |
| TERUUCHI, D. | *Kato, G. and.* Is there 'transitional decrement' in narcotised nerve? | 64, 193, 1927. |
| THEOBALD, G. W. | *and White, M.* An anti-diuretic substance extracted from the liver | 78, 18P, 1933. |
| " | The repetition of certain experiments on which Molitor and Pick base their water-centre hypothesis, and the effect of afferent nerve stimuli on water diuresis | 81, 243, 1934. |
| " | *and Verney, E. B.* The inhibition of water diuresis by afferent nerve stimuli after complete deservation of the kidney | 83, 341, 1935. |
| THERMAN, P. O. | *Granit, R. and.* Inhibition of the off-effect in the optic nerve and its relation to the equivalent phase of the retinal response | 81, 47P, 1934. |
| " | *Granit, R. and.* Excitation and inhibition in the retina and in the optic nerve | 83, 359, 1935. |
| " | *Granit, R., Rubenstein, B. and.* A new type of interaction experiment with the retinal action potential | 85, 34P, 1935. |
| " | *Granit, R. and.* Excitation and inhibition in the off-effect of the retina | 91, 127, 1937. |
| " | *Granit, R. and.* The 'slow potentials' associated with excitation and inhibition in the excised eye | 93, 9P, 1938. |
| THEWLIS, J. | The radiographic examination of dental tissues in relation to their histological structure | 90, 403, 1937. |
| THOMPSON, J. H. | *Vincent, Swale and.* Further observations on the vaso-motor reflexes and associated phenomena | 65, 327, 1928. |
| " | Vasomotor effects of stimulating the right splanchnic nerve | 65, 441, 1928. |
| " | *Vincent, Swale and.* The pharmacodynamical action of chloralose | 65, 449, 1928. |
| " | *Vincent, Swale and.* The effect of hyperrespiration on the blood-pressure in man | 66, 307, 1928. |

| | | |
|---|---|---|
| THOMPSON, J. H. | *Vincent, Swale and.* The role of the thyroid and parathyroid glands in vaso-motor reflexes | 66, 449, 1928. |
| ,, | *Vincent, Swale and.* Pneumin. A respiratory autacoid from the adrenal cortex discharged into the circulation via the lymphatics | 67, III, 1928. |
| ,, | An anti-growth factor | 70, XLI, 1930. |
| ,, | Standardization of the anti-growth hormone of the parathyroid glands. (Preliminary communication) | 71, XVII, 1931. |
| ,, | *Robinson, M. H. B. and.* An anti-growth principle derived from the parathyroid gland | 76, 303, 1932. |
| ,, | *Robinson, M. H. B. and.* The effect on the body temperature of animals of injections of an extract of parathyroid glands | 77, 26*P*, 1932. |
| THOMPSON, J. H. C. | The after-image of black by R. S. Creed. With a mathematical appendix by —— | 73, 247, 1931. |
| THOMPSON, R. H. | *Cope, O. and.* Adrenaline and the blood lactic acid level in hypophysectomized rabbits | 88, 417, 1937. |
| THOMPSON, R. H. S. | Vitamin $B_1$ and the kidney | 81, 11*P*, 1934. |
| ,, | *Peters, R. A. and.* Pyruvic acid and the avitaminous brain | 81, 22*P*, 1934. |
| THOMSON, D. L. | *Black, P. T., Collip, J. B. and.* The effect of anterior pituitary extracts on acetone body excretion in the rat | 82, 385, 1934. |
| ,, | *Collip, J. B., —— and Toby, G.* The effect of adrenaline on muscle glycogen in adrenal-ectomized, thyroidectomized, and hypo-physectomized rats | 88, 191, 1936. |
| THOMSON, D. LANDSBOROUGH | The internal conductivity of non-irritable muscle | 65, 214, 1928. |
| THOMSON, IRENE F. A. | *Barron, D. H. and.* The cervical extension of the solitary tract | 90, 29*P*, 1937. |
| THOMSON, W. | *Fraser, A. H. H., Godden, W., Snook, L. C. and.* The influence of diet upon ketonaemia in pregnant ewes | 94, 346, 1938. |
| ,, | *Fraser, A. H. H., Godden, W., Snook, L. C. and.* Ketonaemia in pregnant ewes and its possible relation to pregnancy disease | 97, 120, 1939. |
| THORNTON, J. W. | *McDowall, R. J. S. and.* A method of recording the movements of isolated bronchi | 70, XLIV, 1930. |
| ,, | *and White, E. G.* Some estimations on the blood and urine of the 1933 Cambridge boat-race crew | 78, 23*P*, 1933. |
| ,, | The liberation of acetylcholine at vagus nerve endings in isolated perfused lungs | 82, 14*P*, 1934. |
| ,, | Bronchodilatation by stimulation of the phrenic nerve | 90, 85*P*, 1937. |
| ,, | Diaphragmatic spasm caused by curarine | 93, 40*P*, 1938. |
| ,, | The potentiation by eserine of broncho-constriction produced by acetylcholine and by stimulation of the cervical vagus in isolated guinea-pig lungs | 96, 53*P*, 1939. |
| ,, | The potentiation of prostigmine by ephedrine in a case of myasthenia gravis | 98, 4*P*, 1940. |

| | | |
|---|---|---|
| Thorpe, W. V. | *Best, C. H., Dale, H. H., Dudley, H. W. and.* The nature of the vasodilator constituents of certain tissue extracts | 62, 397, 1927. |
| " | *Daly, I. de Burgh and.* A variable cam poppet valve for negative pressure respiration | 69, xxxvii, 1930. |
| " | *Daly, I. de Burgh and.* An isolated mammalian heart preparation capable of performing work for prolonged periods. (Preliminary communication) | 77, 10*P*, 1932. |
| " | *Macgregor, R. G. and.* The extraction of histamine from tissues by electrodialysis. (Preliminary communication) | 77, 33*P*, 1933. |
| " | *Daly, I. de Burgh and.* An isolated mammalian heart preparation capable of performing work for prolonged periods | 79, 199, 1933. |
| Tiegs, O. W. | *Corkill, A. B. and.* The effect of sympathetic nerve stimulation on the power of contraction of skeletal muscle | 78, 161, 1933. |
| Tiitso, M. | The response of vagotomized animals to respiratory resistance | 85, 350, 1935. |
| Tingey, A. H. | *Richter, D. and.* Amine oxidase and adrenaline | 97, 265, 1939. |
| Tingle, C. D. | *and Imrie, C. G.* The effect of pituitrin on blood sugar | 62, ii, 1926. |
| Toby, G. | *Bachman, C. and.* The responses of normal and hypophysectomized rabbits to adrenaline | 87, 1, 1936. |
| " | *Collip, J. B., Thomson, D. L. and.* The effect of adrenaline on muscle glycogen in adrenalectomized, thyroidectomized, and hypophysectomized rats | 88, 191, 1936. |
| Torda, Clara | *Martini, E., —— and Zironi, A.* The effect of tetanus toxin on the choline esterase activity of the muscles of rats | 96, 168, 1939. |
| " | Effect of acetylcholine, prostigmine, potassium and fatigue on the crossed extensor reflex and on its reflex inhibition in the toad | 97, 357, 1940. |
| Torrens, D. S. | *Barry, D. T. and.* On the regeneration of blood after haemorrhage | 62, 192, 1926. |
| Tower, Sarah S. | Action potentials in sympathetic nerves, elicited by stimulation of frog's viscera | 78, 225, 1933. |
| Trethewie, E. R. | 'Free' and 'bound' histamine and acetylcholine | 94, 11*P*, 1938. |
| Trevan, J. W. | *Macfarlane, R. G., —— and Attwood, Adela M. P.* Participation of a fat soluble substance in coagulation of the blood | 99, 7*P*, 1941. |
| Tripod, Jean | The sympathomimetic action of local anaesthetics | 97, 289, 1940. |
| " | *Chakravarti, M. and.* The action in the perfused liver of acetylcholine, sympathomimetic substances and local anaesthetics | 97, 316, 1940. |
| Trowell, O. A. | Choline and liver respiration | 85, 356, 1935. |
| " | Urea formation in the isolated perfused liver of the rat | 100, 432, 1942. |

| | | |
|---|---|---|
| Thai, C. | *Evans, C. Lovatt, —— and Young, F. G.* The action of adrenaline on glycogen distribution in cats | 71, xxiv, 1931. |
| ,, | *Evans, C. Lovatt, —— and Young, F. G.* Conditions affecting the liver glycogen in experimental animals | 71, xxv, 1931. |
| ,, | *Evans, C. Lovatt, —— and Young, F. G.* The behaviour of liver glycogen in experimental animals. I. Methods: the effect of ether and amytal | 73, 67, 1931. |
| ,, | *Evans, C. Lovatt, —— and Young, F. G.* The behaviour of liver glycogen in experimental animals. II. Glycogen recovery after decapitation and decerebration | 73, 81, 1931. |
| ,, | *Evans, C. Lovatt, —— and Young, F. G.* The action of adrenaline on glycogen distribution in the cat | 73, 103, 1931. |
| ,, | Action of narcotics on the conduction of nerve impulses from a single end-organ | 73, 382, 1931. |
| Tso, T. M. | The effect of variations in the diastolic filling of the frog's ventricle upon the durations of the refractory period and the mechanical response | 68, 441, 1930. |
| Tsudzimura, H. | *Feldberg, W., Minz, B. and.* The mechanism of the nervous discharge of adrenaline | 80, 15*P*, 1933. |
| ,, | *Feldberg, W., Minz, B. and.* The mechanism of the nervous discharge of adrenaline | 81, 286, 1934. |
| Tuerkischer, E. | *Stein, L., —— and Wertheimer, E.* The regulation of glyconeogenesis | 95, 356, 1939. |
| ,, | *and Wertheimer, E.* Glycogen and adipose tissue | 100, 385, 1942. |
| Tuisk, R. | Protracted oestrus induced by ovarian extracts | 63, 180, 1927. |
| Tunbridge, R. E. | *Allibone, E. C. and.* A study of blood sugar values following the intravenous injection of glucose in man | 95, 4*P*, 1939. |
| Turner, L. B. | An isothermal chamber constant to one-thousandth of a degree centigrade, operated from alternating-current mains | 90, 35*P*, 1937. |
| Umrath, K. | *Adrian, E. D. and.* The impulse discharge from the Pacinian corpuscle | 68, 139, 1929. |
| Underhill, S. W. F. | *Culhane, Kathleen and.* Some factors affecting the response of rabbits towards insulin | 65, xx, 1928. |
| Urban, F. F. | *Heller, H. and.* The fate of the antidiuretic principle of post-pituitary extracts *in vivo* and *in vitro* | 85, 502, 1935. |
| Vacek, T. | *Graff, A. C. de, Evans, C. Lovatt and.* The behaviour of liver glycogen in experimental animals. III. The relationship of blood phosphorus to liver glycogen and blood glucose in the decapitate cat | 76, 387, 1932. |

| | | |
|---|---|---|
| VACEK, T. | *Evans, C. Lovatt, Graff, A. C. de, Kosaka, T., Mackenzie, K., Murphy, G. E., ——, Williams, D. H. and Young, F. G.* The utilization of blood sugar and lactate by the heart-lung preparation | 80, 31, 1933. |
| VANCAULAERT, C. | *Bock, A. V., ——, Dill, D. B., Folling, A. and Hurxthal, L. M.* Studies in muscular activity. III. Dynamical changes occurring in man at work | 66, 136, 1928. |
| " | *Bock, A. V., ——, Dill, D. B., Folling, A. and Hurxthal, L. M.* Studies in muscular activity. IV. The 'steady state' and the respiratory quotient during work | 66, 162, 1928. |
| VAN DE VELDE, J. | *Wacle, H. de and.* The epicardium origin of vagal reflex | 90, 60P, 1937. |
| VARTIAINEN, A. | The sensitisation of leech muscle to barium by eserine | 80, 21P, 1933. |
| " | *Feldberg, W. and.* (Introduced by H. H. Dale.) Action of eserine on transmission through the superior cervical ganglion | 81, 39P, 1934. |
| " | Does vagus stimulation cause an increase in the acetylcholine content of heart muscle? | 82, 282, 1934. |
| " | *Feldberg, W. and.* Further observations on the physiology and pharmacology of a sympathetic ganglion | 83, 103, 1934. |
| VASS, C. C. N. | *Harper, A. A. and.* The control of the external secretion of the pancreas in cats | 99, 415, 1941. |
| VELICK, S. | *Ponder, E. and.* The fixed framework of reticulocytes produced by injection of phenylhydrazine | 97, 5P, 1940. |
| VERNEY, E. B. | *Daly, I. de Burgh and.* Cardiovascular reflexes | 61, 268, 1926. |
| " | The osmotic pressure of the proteins of human serum and plasma | 61, 319, 1926. |
| " | *Daly, I. de Burgh and.* The localisation of receptors involved in the reflex regulation of the heart rate | 62, 330, 1927. |
| " | *Canny, A. J., —— and Winton, F. R.* The double heart-lung-kidney preparation | 68, 333, 1930. |
| " | *and Winton, F. R.* The action of caffeine on the isolated kidney of the dog | 69, 153, 1930. |
| " | *Klisiecki, A., Pickford, Mary, ——, Rothschild, P. and.* Functional division of the splanchnic nerve under local anaesthesia in the dog, and the secretion of urine | 72, 26P, 1931. |
| " | *Pickford, Mary and.* The effect of ligation of a primary arterial branch on the blood and urine flow of the isolated kidney of the dog | 82, 16P, 1934. |
| " | *Theobald, G. W. and.* The inhibition of water diuresis by afferent nerve stimuli after complete denervation of the kidney | 83, 341, 1935. |
| " | *Marshall, F. H. A. and.* Ovulation and pseudo-pregnancy in the rabbit as a result of nervous stimulation | 85, 12P, 1935. |

| | | |
|---|---|---|
| Verney, E. B. | *Marshall, F. H. A. and.* The occurrence of ovulation and pseudo-pregnancy in the rabbit as a result of central nervous stimulation | 86, 327, 1936. |
| ,, | *and Vogt, Martha.* The appearance of fat in the urine after short occlusion of the renal artery of the dog | 93, 51P, 1938. |
| ,, | *Marshall, F. H. A., —— and Vogt, Martha.* The occurrence of ovulation in the rabbit as a result of stimulation of the central nervous system by drugs | 97, 128, 1939. |
| Verney, Ruth Conway | *Baylies, L. E., Kerridge, Phyllis M. Tookey and.* The determination of the hydrogen-ion concentration of the blood | 61, 448, 1926. |
| Vernon, H. M. | *and Vernon, M. D.* The physical and physiological effects of radiant heating by the panel system | 64, I, 1927. |
| ,, | *, Bedford, T. and Warner, C. G.* The influence of various systems of artificial heating on skin temperature | 66, VIII, 1928. |
| ,, | The measurement of radiant heat in relation to human comfort | 70, XV, 1930. |
| Vernon, M. D. | *Vernon, H. M. and.* The physical and physiological effects of radiant heating by the panel system | 64, I, 1927. |
| Verzár, F. | *Barcroft, J. and.* The effect of exposure to cold on the pulse rate and respiration of man | 71, 373, 1931. |
| ,, | Inhibition of fat absorption | 84, 41P, 1935. |
| Vincent, Swale | Further observations on the changes in the adrenal bodies under varying conditions | 61, III, 1926. |
| ,, | *and Curtis, F. R.* Adrenin and the splanchnic nerve | 63, 151, 1927. |
| ,, | *and Thompson, J. H.* Further observations on the vaso-motor reflexes and associated phenomena | 65, 327, 1928. |
| ,, | *and Thompson, J. H.* The pharmacodynamical action of chloralose | 65, 449, 1928. |
| ,, | *and Thompson, J. H.* The effect of hyperrespiration on the blood-pressure in man | 66, 307, 1928. |
| ,, | *and Thompson, J. H.* The role of the thyroid and parathyroid glands in vaso-motor reflexes | 66, 449, 1928. |
| ,, | *and Thompson, J. H.* Pneumin. A respiratory autocoid from the adrenal cortex discharged into the circulation via the lymphatics | 67, III, 1928. |
| Vineberg, A. M. | *Browne, J. S. L. and.* The interdependence of gastric secretion and the $CO_2$ content of the blood | 75, 345, 1932 |
| Virden, C. J. | *Epstein, D., Gunn, J. A. and.* The action of some amines related to adrenaline. I. Methoxy-phenylethylamines | 76, 224, 1932. |
| Visscher, M. B. | *Starling, E. H. and.* The regulation of the energy output of the heart | 62, 243, 1927. |
| ,, | *and Muller, E. A.* The influence of insulin upon the mammalian heart | 62, 341, 1927. |

| | | |
|---|---|---|
| Visscher, M. B. | *Moldavsky, I. P. and.* The energy liberation at constant diastolic fibre length in the tortoise heart with particular reference to the effect of the emptying pressure | 91, 23, 1937. |
| Vladimirov, G. | The effect of some factors upon the blood sugar of embryo chicks | 72, 411, 1931. |
| Vogt, E. | *Krafka, J., Jr., McCrea, F. D. and.* The activity of the spleen during anaphylactic shock | 68, 292, 1929. |
| Vogt, Marthe | Potassium changes in the stimulated superior cervical ganglion | 86, 258, 1936. |
| " | *Dale, H. H., Feldberg, W. and.* Release of acetylcholine at voluntary motor nerve endings | 86, 353, 1936. |
| " | *Verney, E. B. and.* The appearance of fat in the urine after short occlusion of the renal artery of the dog | 93, 51P, 1938. |
| " | *Marshall, F. H. A., Verney, E. B. and.* The occurrence of ovulation in the rabbit as a result of stimulation of the central nervous system by drugs | 97, 128, 1939. |
| " | Ovulation in the rabbit after destruction of the greater superficial petrosal nerves | 100, 410, 1942. |
| Volhard, E. | The carotid sinus | 69, xxxix, 1930. |
| " | *Anrep, G. V., Davis, J. C. and.* The effect of pulse pressure upon the coronary blood flow | 73, 405, 1931. |
| Volokhov, A. A. | *Gersuni, G. V. and.* On the effect of alternating currents on the cochlea | 89, 113, 1937. |
| " | *Arapova, A. A., Gersuni, G. V. and.* A further analysis of the action of alternating currents on the auditory apparatus | 89, 122, 1937. |
| Wadge, W. J. | *McSwiney, B. A. and.* Effects of variations in intensity and frequency on the contractions of the stomach obtained by stimulation of the vagus nerve | 65, 350, 1928. |
| " | *Brown, G. L., McSwiney, B. A. and.* The sympathetic innervation of the stomach. I. The effect on the stomach of stimulation of the thoracic sympathetic trunk | 70, 253, 1930. |
| Waele, H. de | *and van de Velde, J.* The epicardium origin of vagal reflex | 90, 60P, 1937. |
| Walker, A. E. | A study of the cerebello-cerebral relationship by the oscillographic method | 90, 39P, 1937. |
| Walker, M. B. | *Pritchard, E. A. B. and.* The effect of prostigmin on the symptoms and on the myogram in myasthenia gravis | 84, 35P, 1935. |
| " | *Hamill, P. and.* The action of 'prostigmin' (Roche) in neuro-muscular disorders | 84, 36P, 1935. |
| Waller, Letitia | *Coward, K. H., Morgan, B. G. E. and.* The influence of a deficiency of vitamin $B_1$ and of riboflavin on the reproduction of the rat | 100, 423, 1942. |
| Waller, W. W. | Crenation of human erythrocytes, and its reversibility | 70, xlii, 1930. |
| Wallerstein, K. | *Willmer, E. N. and.* The effects of certain aldehydes upon the growth of cells *in vitro* | 96, 16P, 1939. |

| | | |
|---|---|---|
| Walsh, V. G. | An apparatus for the production of finely dispersed emulsions, and the rate of digestion of fat by lipase in relation to the surface area | 78, 467, 1933. |
| Walter, W. G. | The effect of fatigue on end-plate delay | 76, 116, 1932. |
| " | *Cowan, S. L. and.* The effects of tetra-ethyl-ammonium iodide on the electrical response and the accommodation of nerve | 91, 101, 1937. |
| Walton, A. | *Florey, H. and.* Uterine fistula used to determine the mechanism of ascent of the spermatozoon in the female genital tract | 74, 5P, 1931. |
| Warner, C. G. | *Vernon, H. M., Bedford, T. and.* The influence of various systems of artificial heating on skin temperature | 66, VIII, 1928. |
| Warner, E. C. | *Poulton, E. P., Spurrell, W. R. and.* A method of measuring directly the total and partial pressures of the gases in blood | 61, 232, 1926. |
| " | *Poulton, E. P., Spurrell, W. R. and.* A convenient form of closed-circuit respiratory apparatus for measuring simultaneously the carbon dioxide output and the oxygen intake over short or long periods | 67, 423, 1929. |
| Warren, C. B. M. | Alveolar air on Mount Everest | 96, 34P, 1939. |
| Wasti, H. | *Jarisch, A. and.* Observations on the effect of anoxaemia upon heart and circulation | 61, 583, 1926. |
| Waterfield, R. L. | *Harrop, G. A., Jr. and.* The effect of posture on the composition and volume of the blood and on its selective diffusion into the lymph spaces | 70, XXXII, 1930. |
| " | The effects of posture on the circulating blood volume | 72, 110, 1931. |
| " | The effect of posture on the volume of the leg | 72, 121, 1931. |
| Waters, E. T. | *Fletcher, Jean P. and.* The utilization of various metabolites (blood fat and lactate, cardiac and lung glycogen) in the aglycaemic heart-lung preparation | 94, 337, 1938. |
| " | *Jaques, L. B. and.* The identity and origin of the anticoagulant of anaphylactic shock in the dog | 99, 454, 1941. |
| Waterston, D. | *Kidston, M. H. and.* Nerves of the epidermis | 75, 25P, 1932. |
| " | Observations on sensation. The sensory functions of the skin for touch and pain | 77, 251, 1933. |
| Waterston, R. E. | *Dunlop, H. A. and.* Reflex cholinergic nerve impulses | 83, 11P, 1934. |
| Watson, Helen M. Scott | *Folley, S. J., —— and Bottomley, A. C.* Induction of lactation in goats with diethylstilboestrol dipropionate | 98, 15P, 1940. |
| " | (Mrs C. C. Thiel) *Folley, S. J., —— and Bottomley, A. C.* Initiation of lactation in nulliparous heifers by diethylstilboestrol | 100, 7P, 1941. |
| Weatherhead, E. L. | The metabolism of postural and phasic contractions of the quadriceps of the cat | 74, 163, 1932. |
| Webb, D. A. | *and Young, J. Z.* Electrolyte content and action potential of the giant nerve fibres of *Loligo* | 98, 299, 1940. |

| | | |
|---|---|---|
| Weber, C. J. | *Major, R. H., Nanninga, J. B. and.* A comparison of the properties of certain tissue extracts having depressor effects | 76, 487, 1932. |
| Wedd, A. M. | *Drury, A. N. and.* The influence of adenosine and related compounds upon the coronary arteries in the perfused rabbit's heart | 70, xxviii, 1930. |
| ,, | *Drury, A. N. and.* The influence of nucleic acid derivatives upon the coronary blood flow in the dog | 79, 5*P*, 1933. |
| Weiler, G. | The action of barbiturates on the response of amphibian muscle to electrical stimulation | 96, 51*P*, 1939. |
| Weir, J. B. de V. | *and Bell, G. H.* A general purpose speedometer | 96, 31*P*, 1939. |
| Wells, H. M. | *Collier, R. A., Densham, H. B. A. R. and.* The compensation by the skin vessels during over-ventilation in man | 64, xxiii, 1927. |
| Werch, S. C. | Blood-sugar raising action of extracts from urine of non-pregnant, pregnant and lactating women | 93, 18*P*, 1938. |
| Wertheimer, E. | *Mirski, A., Rosenbaum, I., Stein, L. and.* On the behaviour of glycogen after diets rich in protein and in carbohydrate | 92, 48, 1938. |
| ,, | *Stein, L., Tuerkischer, E. and.* The regulation of glyconeogenesis | 95, 356, 1939. |
| ,, | *Tuerkischer, E. and.* Glycogen and adipose tissue | 100, 385, 1942. |
| West, R. | The action of curarine on the respiratory mechanism | 91, 437, 1938. |
| White, A. C. | *Clark, A. J. and.* The action of acetyl choline on the cardiac frequency and the blood-pressure of the cat | 64, xi, 1927. |
| ,, | *Clark, A. J. and.* The oxygen consumption of the frog's heart. I | 66, 185, 1928. |
| ,, | *Clark, A. J. and.* The oxygen consumption of the frog's heart. II. Effect of lipoids, ions and narcotics | 66, 203, 1928. |
| ,, | *Clark, A. J. and.* The oxygen consumption of the auricles of the frog and of the tortoise | 68, 406, 1930. |
| ,, | *Clark, A. J. and.* Action of ionic changes on the oxygen consumption of the frog's auricle | 68, 433, 1930. |
| White, E. G. | *Thornton, J. W. and.* Some estimations on the blood and urine of the 1933 Cambridge boat-race crew | 78, 23*P*, 1933. |
| White, M. | *Theobald, G. W. and.* An anti-diuretic substance extracted from the liver | 78, 18*P*, 1933. |
| White, W. E. | *McPhail, M. K., Parkes, A. S. and.* Ovulation after blood dilution and cross-circulation | 79, 180, 1933. |
| ,, | *Parkes, A. S. and.* The excretion of prolan after intravenous injection into the rabbit | 79, 226, 1933. |
| ,, | The extra-uterine survival of spermatozoa | 79, 230, 1933. |
| ,, | *Hill, Margaret and.* The growth and regression of follicles in the oestrous rabbit | 80, 174, 1933. |
| ,, | *Corkill, A. B., Marks, H. P. and.* Relation of the pituitary gland to the action of insulin and adrenaline | 80, 193, 1933. |

| | | |
|---|---|---|
| White, W. E. | *Hill, R. Towner, Parkes, A. S. and.* The assay of the ovulation-producing substance | 81, 335, 1934. |
| Whitehead, R. | *Simmons, H. T. and.* The technique of suprarenalectomy in the guinea-pig and the survival period and cause of death of guinea-pigs after bilateral suprarenalectomy | 88, 235, 1936. |
| Whittaker, S. R. F. | *and Winton, F. R.* The apparent viscosity of blood flowing in the isolated hindlimb of the dog, and its variation with corpuscular concentration | 78, 339, 1933. |
| Whitteridge, D. | The transmission of impulses through the ciliary ganglion | 89, 99, 1937. |
| " | *Bülbring, Edith and.* The effect of adrenaline on nerve action potentials | 99, 201, 1941. |
| Whittle, C. H. | *Crew, W. H. and.* On the absorption of ultra-violet radiation by human sweat | 93, 335, 1938. |
| Widdowson, E. M. | *McCance, R. A. and.* The secretion of urine in man during experimental salt deficiency | 91, 222, 1937. |
| " | *McCance, R. A. and.* The absorption and excretion of iron following oral and intravenous administration | 94, 148, 1938. |
| " | *McCance, R. A. and.* Functional disorganisation of the kidney in disease | 95, 36, 1939. |
| Wien, R. | *Bruce, H. M. and.* The effect of riboflavin, riboflavinphosphoric acid and the cortical hormone on the survival of adrenalectomized rats receiving normal and riboflavin-deficient diets | 98, 375, 1940. |
| Wieninger, E. | *Alam, M., Anrep, G. V., Barsoum, G. S., Talaat, M. and.* Liberation of histamine from the skeletal muscle of curare | 95, 148, 1939. |
| " | *Anrep, G. V., Barsoum, G. S., Talaat, M. and.* Determination of histamine in blood | 95, 476, 1939. |
| " | *Anrep, G. V., Barsoum, G. S., Talaat, M. and.* Effect of clotting and of the addition of histamine on its distribution in blood | 96, 130, 1939. |
| " | *Anrep, G. V., Barsoum, G. S., Talaat, M. and.* Further observations upon the release of histamine by skeletal muscles | 96, 240, 1939. |
| Wiersma, C. A. G. | *Harreveld, A. van and.* The double motor innervation of the adductor muscle in the claw of the crayfish | 88, 78, 1936. |
| " | *Marmont, G. and.* On the mechanism of inhibition and excitation of crayfish muscle | 93, 173, 1938. |
| Wierzuchowski, M. | The limiting rate of assimilation of glucose introduced intravenously at constant speed in the resting dog | 87, 311, 1936. |
| " | (Introduced by C. Heymans.) Overflow diabetes and toxic phenomena due to the infusion of glucose in normal dogs | 87, 85*P*, 1936. |
| " | Oxidation of glucose as function of its supply | 90, 440, 1937. |
| " | The origin and limits of the specific dynamic action of intravenous glucose | 91, 140, 1937. |
| Wiesner, B. P. | *Taylor, H. and.* Experiments on the temperature coefficient of heart activity | 75, 36*P*, 1932. |

| | | |
|---|---|---|
| Wiesner, R. P. | The development of reactivity to gonadotropin hormones | 75, 39P, 1932. |
| " | Effects of early oöphorectomy in rats | 75, 39P, 1932. |
| Wildschut, A. | *Brinkman, R., —— and Wittermans, A.* On the occurrence of two kinds of haemoglobin in normal human blood | 80, 377, 1934. |
| Wiles, P. | *Allan, H. and.* The role of the pituitary gland in pregnancy and parturition. I. Hypophysectomy | 75, 23, 1932. |
| Wilhelmj, C. M. | *Boothby, W. M., Buckley, O. B. and.* The influence of work on the calorigenic action of thyroxine | 74, 376, 1932. |
| Wilkins, R. W. | *Doupe, J., Newman, H. W. and.* A method for the continuous recording of systolic arterial pressure in man | 95, 239, 1939. |
| " | *Doupe, J., Newman, H. W. and.* The effect of peripheral vasomotor activity on systolic arterial pressure in the extremities of man | 95, 244, 1939. |
| Wilkinson, J. F. | *Aylward, F. X., Grieve, W. S. M., Mainwaring, B. R. S. and.* The haemopoietic activity of mammalian livers | 100, 94, 1941. |
| Williams, B. W. | *MacLean, H., Griffiths, W. J. and.* Variations in the acidity and total chloride contained in the secretion from an isolated Pavlov pouch in the dog | 65, 77, 1928. |
| Williams, D. | (Introduced by D. Denny-Brown.) The effect of cholin-like substances upon epilepsy | 99, 8P, 1941. |
| Williams, D. H. | *Evans, C. Lovatt, Graff, A. C. de, Kosaka, T., Mackenzie, K., Murphy, G. E., Vacek, T., Williams, D. H. and Young, F. G.* The utilisation of blood sugar and lactate by the heart-lung preparation | 80, 21, 1933. |
| Williams, D. J. | *Bolton, B., Carmichael, E. A. and.* Mechanism of the peripheral vascular responses to changes in blood gas tension in man | 88, 113, 1936. |
| " | *Carmichael, A. E., Doupe, J. and.* The cerebro-spinal fluid pressure of man in the erect posture | 91, 186, 1937. |
| Williams, P. C. | *Dodds, E. C., Noble, R. L. and.* The pituitary gland and the control of urinary secretion | 91, 202, 1937. |
| " | *Robertson, J. D. and.* The creatinine, sugar, and urea equilibrium between plasma and lymph, aqueous humour, cerebro-spinal fluid, and gastric secretion after a hypertonic injection of these solutions | 95, 139, 1939. |
| " | *Noble, R. L., Rinderknecht, H. and.* The apparent augmentation of pituitary antidiuretic action by various retarding substances | 96, 293, 1939. |
| Willmer, E. N. | *Keys, A. and.* 'Chloride-secreting cells' in the gills of fishes, with special reference to the common eel | 76, 368, 1932. |
| " | *and Wallersteiner, K.* The effects of certain aldehydes upon the growth of cells *in vitro* | 96, 16P, 1939. |

| | | |
|---|---|---|
| Wilson, A. | The effect of adrenalectomy on the blood histamine of rabbits | 99, 241, 1941. |
| Wilson, A. T. | Causes of death in adrenalectomized decerebrate cats | 72, 9P, 1931. |
| " | Replacement therapy in adrenalectomized cats. (Preliminary note) | 72, 11P, 1931. |
| " | *Moncrieff, A. A. and.* A simple alcohol check apparatus for closed circuit metabolic work | 78, 16P, 1933. |
| " | *Barratt, J. F. B. and.* Liver fat and blood determinations after adrenalectomy | 81, 43P, 1934. |
| " | *Kremer, M., —— and Wright, Samson.* Gaseous interchanges through the visceral pleura of the cat | 82, 414, 1934. |
| " | *Robertson, J. D. and.* Impedance angle determinations: various correlations and experiments | 85, 23P, 1935. |
| Wilson, C. | *Brunton, C. E. and.* The relation of different foodstuffs to the alkaline tide of the urine | 74, 10P, 1932. |
| Wilson, C. A. | *Byrom, F. B. and.* Plethysmographic method for measuring systolic blood pressure in the intact rat | 93, 301, 1938. |
| Wilson, D. C. | Rickets and dental caries | 96, 8P, 1939. |
| Wilson, H. E. C. | Studies on the physiology of protein retention | 72, 327, 1931. |
| " | The influence of muscular work on protein metabolism | 75, 67, 1932. |
| " | Experiments on the nature of the labile role of sulphur in metabolism | 77, 240, 1933. |
| " | The effect of prolonged hard muscular work on sulphur and nitrogen metabolism | 82, 184, 1934. |
| Wilson, M. J. | *Gavin, Gertrude, McHenry, E. W. and.* Histamine in canine gastric tissues | 79, 234, 1933. |
| Wilson, W. C. | *Adam, H. M., McKail, R. A., Obrador, S. and.* Acetylcholine in the cerebro-spinal fluid | 93, 45P, 1938. |
| " | *Loudon, A. G. R., McKail, R. A., Ras, S. L., Stewart, C. P. and.* Changes in sodium and in other constituents of blood and extracellular fluids following scalds | 96, 27P, 1939. |
| " | *McKail, R. A., Obrador, S. and.* The action of acetylcholine, eserine and other substances on some motor responses of the central nervous system | 99, 312, 1941. |
| Wilson, W. H. | The influence of posture on the volume of the reserve air | 64, 54, 1927. |
| " | *and Hammouda, M.* Method of investigating the effects of distension and collapse of the lungs on the respiratory rhythm in animals | 66, vi, 1928. |
| " | *Hammouda, M. and.* The vagus influences giving rise to the phenomena accompanying expansion and collapse of the lungs | 74, 81, 1932. |
| " | Effect of breathing on the intra-abdominal pressure | 79, 481, 1933. |
| " | *Hammouda, M. and.* Influences which affect the form of the respiratory cycle, in particular that of the expiratory phase | 80, 281, 1933. |

| | | |
|---|---|---|
| Wilson, W. H. | *Hammouda, M. and.* The presence in the vagus of fibres transmitting impulses augmenting the frequency of respiration | 83, 292, 1935. |
| " | *Hammouda, M. and.* Further observations on the respiratory-accelerator fibres of the vagus | 85, 62, 1935. |
| " | *Hammouda, M. and.* Reflex slowing of respiration accompanying changes in the intrapulmonary pressure | 88, 284, 1936. |
| " | *and Hammouda, M.* The respiratory response to the excitation of a sensory nerve | 93, 39*P*, 1938. |
| " | *Hammouda, M. and.* Reflex acceleration of respiration arising from excitation of the vagus or its terminations in the lungs | 94, 497, 1939. |
| Wiltshire, Marion O. P. | On the rate of oxidation of adrenaline and the assumed sensitization of intestinal muscle by blood, serum and tissue cells | 69, xv, 1930. |
| " | The effect of amino-acids on the rate of oxidation of adrenaline | 69, xxiv, 1930. |
| " | The influence of tissues and amino acids on the oxidation of adrenaline | 72, 88, 1931. |
| Windle, W. F. | *Barcroft, J., Barron, D. H. and.* Some observations on genesis of somatic movements in sheep embryos | 87, 73, 1936. |
| " | The genesis of somatic behaviour in mammalian embryos | 87, 31*P*, 1936. |
| " | *Steele, A. G. and.* The oxygen and carbon dioxide content of the blood of normal and pregnant decerebrate cats | 94, 525, 1939. |
| " | *Steele, A. G. and.* Some correlations between respiratory movements and blood gases in cat foetuses | 94, 531, 1939. |
| Winfield, G. | A simple volume recorder | 95, 14*P*, 1939. |
| Winiwarter, H. de | Histological continuities and mutations | 90, 71*P*, 1937. |
| Winter, L. B. | Lactose excretion in the puerperium, and isolation of sugars from urine and blood | 69, viii, 1929. |
| " | The metabolism of lactose. Part I. The occurrence of lactose in urine | 71, 341, 1931. |
| " | Cellobiose in relation to the mammary gland | 73, 6*P*, 1931. |
| " | The metabolism of lactose. Part II. The blood sugar during lactation | 77, 100, 1932. |
| " | *Clark, G. A. and.* Sugar in lymph | 83, 49*P*, 1935. |
| " | The effect of cyanide on the inositol metabolism of the heart | 86, 21*P*, 1935. |
| Winton, F. R. | The influence of length on the responses of unstriated muscle to electrical and chemical stimulation, and stretching | 61, 368, 1926. |
| " | The influence of temperature on the mechanical responses of certain unstriated muscles | 63, 28, 1927. |
| " | *Kerridge, Phyllis M. Tookey and.* The hydrogen ion concentration of the isolated uterus | 67, 66, 1929. |
| " | *Canny, A. J., Verney, E. B. and.* The double heart-lung-kidney preparation | 68, 333, 1930. |
| " | *Verney, E. B. and.* The action of caffeine on the isolated kidney of the dog | 69, 153, 1930. |
| " | Tonus in mammalian unstriated muscle. I. | 69, 393, 1930. |

| | | |
|---|---|---|
| Wilton, F. R. | The influence of increase of ureter pressure on the isolated mammalian kidney | 71, 381, 1931. |
| " | The influence of venous pressure on the isolated mammalian kidney | 72, 49, 1931. |
| " | The glomerular pressure in the isolated mammalian kidney | 72, 361, 1931. |
| " | The control of the glomerular pressure by vascular changes within the isolated mammalian kidney, demonstrated by the actions of adrenaline | 73, 151, 1931. |
| " | *Whittaker, S. R. F. and.* The apparent viscosity of blood flowing in the isolated hind-limb of the dog, and its variation with corpuscular concentration | 78, 339, 1933. |
| " | Intrarenal pressure | 78, 9*P*, 1933. |
| " | *Bickford, R. G. and.* The influence of temperature on the isolated mammalian kidney | 78, 14*P*, 1933. |
| " | The effects of frequency of alternating and intermittent direct current stimulation on isolated plain muscle (foot retractor, *Mytilus*) | 82, 1*P*, 1934. |
| " | Intrarenal pressure, and its variations due to cooling and 'reducing' the isolated kidney of the dog | 82, 27*P*, 1934. |
| " | The relation between diuresis and maximum ureter pressure, and its bearing on current methods of estimating the rate of glomerular filtration | 83, 38*P*, 1934. |
| " | Changes in the viscous-elastic properties of plain muscle during electrical stimulation | 84, 47*P*, 1935. |
| " | The influence of changes in arterial pressure on the intrarenal pressure in the isolated mammalian kidney | 87, 18*P*, 1936. |
| " | A universal mains drop recorder | 87, 20*P*, 1936. |
| " | Simultaneous recording on a smoked drum of (1) the conductivity and (2) rate of flow of urine, and (3) the arterial blood flow through the isolated mammalian kidney | 87, 65*P*, 1936. |
| " | *Herman, F. G. and.* The interaction of intra-renal and extrarenal pressures | 87, 77*P*, 1936. |
| " | The changes in viscosity of an unstriated muscle (*Mytilus edulis*) during and after stimulation with alternating, interrupted and uninterrupted direct currents | 88, 492, 1937. |
| " | *Bickford, R. G. and.* The influence of temperature on the isolated kidney of the dog | 89, 198, 1937. |
| " | The recording of urine flow | 95, 60*P*, 1939. |
| " | *Kramer, K. and.* The influence of urea and of change in arterial pressure on the oxygen consumption of the isolated kidney of the dog | 96, 87, 1939. |
| " | *Eggleton, M. Grace, Pappenheimer, J. R. and.* The influence of diuretics on the osmotic work done and on the efficiency of the isolated kidney of the dog | 97, 363, 1940. |
| " | *Shannon, J. A. and.* The renal excretion of inulin and creatinine by the anaesthetized dog and the pump-lung-kidney preparation | 98, 97, 1940. |

| | | |
|---|---|---|
| Winton, F. R. | *Eggleton, M. Grace, Pappenheimer, J. R. and.* The mechanisms of dilution diuresis in the isolated kidney and the anaesthetized dog | 98, 336, 1940. |
| ,, | *Eggleton, M. Grace, Pappenheimer, J. R. and.* The relation between ureter, venous, and arterial pressures in the isolated kidney of the dog | 99, 135, 1940. |
| Winton, S. S. | *Heard, R. D. H. and.* Use of the dietary anoestrus adult rat for the assay of the oestrus-inducing gonadotrophic substance | 96, 248, 1939. |
| Wishart, G. Macfhat | The influence of the protein intake on the basal metabolism | 65, 243, 1928. |
| ,, | *Garry, R. C. and.* On the existence of a most efficient speed in bicycle pedalling, and the problem of determining human muscular efficiency | 72, 425, 1931. |
| ,, | The efficiency and performance of a vegetarian racing cyclist under different dietary conditions | 82, 189, 1934. |
| ,, | *Garry, R. C. and.* The efficiency of bicycle pedalling in the trained subject | 82, 200, 1934. |
| ,, | *Blackwood, Janet H. and.* The effect of salivary activity on the composition of bovine blood | 86, 37, 1936. |
| Wislicki, L. | *Macdonald, A. D. and.* Effects of cabbage extracts on carbohydrate metabolism | 94, 249, 1938. |
| Witanowski, W. R. | The differential paralysis of cardiac nerve endings and muscle | 62, 88, 1926. |
| Wittermans, A. | *Brinkman, R., Wildschut, A. and.* On the occurrence of two kinds of haemoglobin in normal human blood | 80, 377, 1934. |
| Wolf, A. | *Andersen, Dorothy H. and.* Pinealectomy in rats, with a critical survey of the literature | 81, 49, 1934. |
| Woodman, Dorothy | Effect of parathyroid feeding on the thyroid | 61, 557, 1926. |
| Woolfe, G. | *Macdonald, A. D. and.* Blood histamine in traumatic shock | 93, 58P, 1938. |
| Woolham, J. G. | *and Honeyburne, W. R.* On the correlation between pulse and respiratory tests of schoolboys | 65, vi, 1928. |
| ,, | *Lamb, F. W., Portman, E. D. and.* Posture deviations of the arm and their reversal | 65, x, 1928. |
| Wrede, C. M. | *Granit, R. and.* The electrical responses of light-adapted frogs' eyes to monochromatic stimuli | 89, 239, 1937. |
| Wright, G. Payling | *Bolton, C. and.* The absorption of amino acids and their distribution in the body fluids | 89, 289, 1937. |
| Wright, R. D. | *Jennings, M. A., Florey, H. W. and Lium, R.* Observations on intestinal secretion | 96, 13P, 1939. |
| Wright, Samson | *Peacock, P. R. and.* The action of light on cod-liver oil | 61, xxxvi, 1926. |
| ,, | *and Kremer, M.* The partition coefficient of ethyl iodide and its destruction by the tissues | 63, x, 1927. |

| | | |
|---|---|---|
| WRIGHT, SAMSON | *and Kremer, M.* Studies on the circulation rate in man. I. Critical examination of ethyl iodide method | 64, 107, 1927. |
| „ | Studies of reflex activity in the involuntary nervous system. I. Depressor reflexes | 66, 387, 1928. |
| „ | *and Bulman, H. A.* Physiological action of X-rays. (Preliminary communication) | 68, iv, 1929. |
| „ | Studies of reflex activity in involuntary nervous system. II. Action of ergotamine on vaso-motor reflexes | 69, 331, 1930. |
| „ | Action of adrenaline and related substances on respiration | 69, 493, 1930. |
| „ | A quantitative graphic respiration recorder for small animals | 80, 28*P*, 1934. |
| „ | *Kremer, M., Wilson, A. T. and.* Gaseous interchanges through the visceral pleura of the cat | 82, 414, 1934. |
| „ | *Schweitzer, A. and.* Action of adrenaline on the knee jerk | 87, 92*P*, 1936. |
| „ | *Schweitzer, A. and.* Effects on the knee jerk of stimulation of the central end of the vagus and of various changes in the circulation and respiration | 88, 459, 1937. |
| „ | *Schweitzer, A. and.* The action of adrenaline on the knee jerk | 88, 476, 1937. |
| „ | *Kremer, M., Pearson, H. E. S. and.* Action of prostigmine on spinal cord in man | 89, 21*P*, 1936. |
| „ | *Schweitzer, A. and.* The action of eserine and related compounds and of acetylcholine on the central nervous system | 89, 165, 1937. |
| „ | *Schweitzer, A. and.* Further observations on the action of acetylcholine, prostigmine and related substances on the knee jerk | 89, 384, 1937. |
| „ | *Schweitzer, A. and.* The anti-strychnine action of acetylcholine, prostigmine and related substances, and of central vagus stimulation | 90, 310, 1937. |
| „ | *Schweitzer, A. and.* Mode of action of anti-cholinesterases on the central nervous system (spinal cord) | 92, 6*P*, 1938. |
| „ | *Schweitzer, A. and.* Action of hordenine compounds on the central nervous system | 92, 422, 1938. |
| „ | *Schweitzer, A. and.* Action of nicotine on the spinal cord | 94, 136, 1938. |
| „ | *Schweitzer, A., Stedman, E. and.* Central action of anticholinesterases | 96, 302, 1939. |
| WRIGHT, W. D. | Intensity discrimination and its relation to the adaptation of the eye | 83, 466, 1935. |
| „ | The breakdown of a colour match with high intensities of adaptation | 87, 23, 1936. |
| „ | Hue discrimination and its relation to the adaptation of the eye | 88, 167, 1936. |
| WYMAN, J., JR. | Studies on the relation of work and heat in tortoise muscle | 61, 337, 1926. |
| YAMAGIWA, K. | On the effect of a non-electrolyte upon the size of the action potential of nerve | 84, 83, 1935. |

| | | |
|---|---|---|
| Yoffey, J. M. | The fall in the blood lymphocytes of the dog under chloralose anaesthesia | 85, 450, 1935. |
| Young, F. G. | *Evans, C. Lovatt, Tsai, C. and.* The action of adrenaline on glycogen distribution in cats | 71, xxiv, 1931. |
| " | *Evans, C. Lovatt, Tsai, C. and.* Conditions affecting the liver glycogen in experimental animals | 71, xxv, 1931. |
| " | *Evans, C. Lovatt, Tsai, C. and.* The behaviour of liver glycogen in experimental animals. I. Methods: the effect of ether and amytal | 73, 67, 1931. |
| " | *Evans, C. Lovatt, Tsai, C. and.* The behaviour of liver glycogen in experimental animals. II. Glycogen recovery after decapitation and decerebration | 73, 81, 1931. |
| " | *Evans, C. Lovatt, Tsai, C. and.* The action of adrenaline on glycogen distribution in the cat | 73, 103, 1931. |
| " | *Murphy, G. E. and.* The behaviour of liver glycogen in experimental animals. IV. The effect of some anaesthetics | 76, 395, 1932. |
| " | *Evans, C. Lovatt, Murphy, G. E. and.* The behaviour of liver glycogen in experimental animals. V. Some factors affecting liver glycogen recovery in the decapitate cat | 76, 413, 1932. |
| " | *Evans, C. Lovatt, Graff, A. C. de, Kosaka, T., Mackenzie, K., Murphy, G. E., Vacek, T., Williams, D. H. and.* The utilization of blood sugar and lactate by the heart-lung preparation | 80, 21, 1933. |
| " | *Best, C. H., Huntsman, M. Elinor and.* The effect of diets low in choline, and of choline feeding, on the glycosuria of the depancreatized dog | 85, 8P, 1935. |
| " | Sugar formation from fat | 87, 11P, 1936. |
| " | The influence of anterior pituitary extracts on the glycaemic response to insulin and adrenaline in rabbits | 87, 13P, 1936. |
| " | The influence of glycotropic pituitary extracts on liver glycogen | 90, 20P, 1937. |
| " | Attempts to produce antisera to the lactogenic and glycotropic substances of the anterior pituitary gland | 90, 22P, 1937. |
| " | *Richardson, K. C. and.* The 'pancreotropic' action of anterior pituitary extracts | 91, 352, 1937. |
| " | The production of antisera to prolactin | 92, 4P, 1938. |
| " | *Marks, H. P. and.* Metabolism of the dog made diabetic by anterior pituitary injections | 92, 14P, 1938. |
| " | Dogs made permanently diabetic by anterior pituitary injections | 92, 15P, 1938. |
| " | *Marks, H. P. and.* The influence of anterior pituitary extracts, injected either with or without insulin, on the glycogen contained in the livers of fasting young rabbits | 93, 61, 1938. |
| " | *Newton, W. H. and.* The influence of the glycotropic (anti-insulin) factor of the anterior hypophysis on the insulin sensitivity of the hypophysectomized rabbit | 94, 40, 1938. |

YOUNG, F. G. *Rowlands, I. W. and.* The capacity of pituitary preparations containing the thyrotrophic hormone to induce the formation of antisera 95, 410, 1939.

" Growth and pituitary diabetogenesis 100, 19*P*, 1942.

YOUNG, J. Z. Impulses in the giant nerve fibres of earthworms 77, 23*P*, 1932.

" *Burbank, R. C. and.* Temperature changes and winter sleep of bats 82, 459, 1934.

" Structure of nerve fibres in *Sepia* 83, 27*P*, 1934.

" Structure of the sheaths of *Maia* nerve fibres 85, 2*P*, 1935.

" *Bogue, J. Yule, Rosenberg, H. and.* Electrotonus in the fin nerve of *Sepia* 86, 6*P*, 1935.

" Synaptic transmission in the absence of nerve cell bodies 93, 43*P*, 1938.

" *Pumphrey, R. J., Schmitt, O. H. and.* Correlation of local excitability with local physiological response in the giant axon of the squid (*Loligo*) 98, 47, 1940.

" *Webb, D. A. and.* Electrolyte content and action potential of the giant nerve fibres of *Loligo* 98, 299, 1940.

YOUNG, M. H. C. *Downman, C. B. B., Goggio, A. F., McSwiney, B. A. and.* Reflex vaso-motor responses from the paws of the cat 96, 14*P*, 1939.

YOUNG, W. F. *McCance, R. A. and.* The secretion of urine by newborn infants 99, 265, 1941.

ZEFIROW, P. P. *Funk, C. and.* Decreased urinary flow in rats on high fat diet 77, 29*P*, 1932.

ZEWI, M. *Granit, R., Holmberg, T. and.* On the mode of action of visual purple on the rod cell 94, 430, 1938.

" *Granit, R., Munsterhjelm, A. and.* The relation between concentration of visual purple and retinal sensitivity to light during dark adaptation 96, 31, 1939.

ZERONI, A. *Martini, E., Torda, Clara and.* The effect of tetanus toxin on the choline esterase activity of the muscles of rats 96, 168, 1939.

" *Meyerhof, H. L. and.* The action of embryonic extracts on the sex organs 97, 495, 1940.

ZONDEK, B. The formation of the corpus luteum is dependent on the anterior pituitary lobe, and not on the maturing ovum. The fertilized ovum and hormones 81, 472, 1934.

ZOTTERMAN, Y. *Adrian, E. D. and.* The impulses produced by sensory nerve endings. Part II. The response of a single end-organ 61, 151, 1926.

" *Adrian, E. D. and.* Impulses from a single sensory end-organ 61, VIII, 1926.

" *Adrian, E. D. and.* The impulses produced by sensory nerve endings. Part III. Impulses set up by touch and pressure 61, 465, 1926.

" *Lewis, T. and.* Vascular reactions of the skin to injury. Part VIII. The resistance of the human skin to constant currents, in relation to injury and vascular response 62, 280, 1927.

| | | |
|---|---|---|
| ZOTTERMAN, Y. | *Gerard, R. W., Hill, A. V. and.* The effect of frequency of stimulation on the heat production of nerve | 63, 130, 1927. |
| " | Note on the electric response of nerve to two stimuli | 66, 181, 1928. |
| " | *Fromm, B., Nylén, O. and.* Electric stimulation of the cochlea | 80, 3P, 1933. |
| " | Touch, pain and tickling: an electro-physiological investigation on cutaneous sensory nerves | 95, 1, 1939. |
| " | *Euler, U. S. v., Liljestrand, G. and.* The excitation mechanism of the chemoreceptors of the carotid body | 96, 42P, 1939. |
| ZUCKERMAN, S. | *and Parkes, A. S.* The oestrous cycle of the *Hamadryas* baboon | 69, XXXI, 1930. |
| " | *Parkes, A. S. and.* Effect of oestrone on the primate prostate | 84, 15P, 1935. |
| " | Variation in the sensitivity of different species of monkeys to oestrin | 84, 191, 1935. |
| " | The interrelation of oestrone and progestin in the menstrual cycle | 86, 31P, 1936. |
| " | The nature of the oestrin-stimulus in uterine bleeding | 87, 51P, 1936. |
| " | *Krohn, P. L. and.* Water metabolism in relation to the menstrual cycle | 88, 369, 1937. |
| " | *Ranson, R. M. and.* The vaginal hydrogen-ion concentration in monkeys injected with oestrone | 89, 96, 1937. |
| " | *Fisher, R. B. and.* The distribution of water in the sexual skin of monkeys | 89, 15P, 1936. |
| " | Further observations on endocrine interactions in the menstrual cycle | 89, 49P, 1937. |
| " | *Guthkelch, A. N. and.* Concentration of the blood in relation to the menstrual cycle in monkeys | 89, 51P, 1937. |
| " | *Guthkelch, A. N. and.* The red cell count of macaques in relation to the menstrual cycle | 91, 269, 1937. |
| " | Cyclical fluctuations in the sensitivity of the rat to oestrogenic stimulation | 92, 12P, 1938. |
| " | The adrenals and pituitary in relation to cyclical changes in the oestrin-sensitivity of the rat | 92, 13P, 1938. |
| " | The influence of testosterone propionate on the changes induced in monkeys by gonadotrophic hormone | 93, 15P, 1938. |
| " | *Parkes, A. S. and.* The ovarian responses of hypophysectomized rats and X-ray sterilized mice to testosterone propionate | 93, 16P, 1938. |
| " | *Aykroyd, Olive E. and.* Factors in sexual-skin oedema | 94, 13, 1938. |
| " | Water-retention in the reproductive organs of female monkeys | 94, 3P, 1938. |
| ZWARENSTEIN, H. | *Shapiro, H. A. and.* Effects of progesterone and testosterone on *Xenopus* and on its excised ovary | 89, 38P, 1937. |

# SUBJECT INDEX

## to Volumes 61 to 100

# PREFACE TO SUBJECT INDEX

THE method adopted in this Index includes some features of the earliest Index to vols. 1–25, made by Professor Langley, and some of the later Index to vols. 1–60, made by Dr Priestley, but in many respects it departs from both.

The main points of practical significance to the user of the Index are the following:

(1) References to volumes are in Clarendon type and references to pages in ordinary Arabic numerals for papers. References to articles in the *Proceedings* are either in small Roman numerals or in Arabic followed by a capital *P*.

(2) Owing to the length of some papers and the variety of subject-matter covered, the reference in each case is not to the first page of a paper but to the first page on which the subject in question is mentioned.

(3) When six entries or more are included under two key words, the whole group has been removed to the end of the section under the first key word, both now being regarded as one, and a cross-reference given in the appropriate place. Thus, **Urine** flow, *see* **Urine Flow**, which appears after all other references to **Urine**.

(4) The attempt has been made, where a subject can be considered from more than one point of view, to give entries referring to each of them, e.g. Weber's law in connexion with vision is entered under both subjects.

(5) When two alternative words are in general use for the same subject, e.g. liver and hepatic or kidney and renal, the choice of the author of the paper has been accepted and only a general cross-reference given to the whole subject.

(6) The name of the experimental animal used has, as in Dr Priestley's Index, been given after each reference, except in those cases where the author of the paper has omitted to mention it. Heart-lung-kidney is abbreviated to *H-L-K*; similarly, in such preparations *P* = pump, *Li* = liver, etc.

Some of the many anomalies which will undoubtedly be found in the Index are due to the long lag between preparation (1941–42) and publication, with inevitable changes in viewpoint of those controlling its general design. Nevertheless, I am bound to conclude as did Dr Priestley in the last Preface: 'I am wholly responsible for such mistakes and shortcomings as may be discovered by those who use the Index.'

M. GRACE EGGLETON

1946

# SUBJECT INDEX


**Abdomen weight**, water absorption relation to (*man*), 78, 113
**Abdominal cavity**, carbon dioxide tension in (*mammal, cold-blooded*), 61, 248; (*rabbit*), 66, II
oxygen tension in (*mammal, cold-blooded*), 61, 248; (*rabbit*), 66, II
haemoglobin and (*rabbit*), 65, 265
**Abdominal vena cava**, reactions of (*mammal*), 88, 261
**Abdominal viscera**, respiratory quotient of (*cat*), 79, 517
**Abortion**, corpus luteum removal causing (*goat*), 61, 610
oestrin and oxytocin production of (*mouse*), 84, 122
oestrin and oxytocin synergism in producing (*mouse*), 84, 139
oestrus return following (*mouse*), 69, 470
tissue extracts causing (*mouse*), 78, 31*P*
uterine reaction to oxytocin following (*mouse*), 86, 171
**Acapnia**, liver glycogen after decapitation affected by (*cat*), 73, 92
**Acclimatization**, carbon monoxide and (*man*), 87, 41
effect on blood in (*mouse*), 91, 283
poisoning and (*mammal*), 68, 90
low oxygen pressure comparison with high altitude (*man*), 82, 369
oxygen pressure and factors concerned in (*rabbit*), 62, 227
**Acetate**, vaso-dilator action of (*mammal*), 66, 371
**Acetoacetic acid**, choline action on production in sliced liver of (*rat*), 85, 367
**Acetone bodies**, perfused liver production of (*mammal*), 61, 514
**Acetonuria**. *See* **Ketonuria**
**Acetyl-β-methyl choline**, gastric acidity affected by (*monkey*), 83, 455
**Acetylcholine**, adrenal gland and distribution of (*mammal*), 81, 37*P*
adrenal medulla response to (*cat*), 99, 112
adrenaline antagonism in denervated muscle to (*mammal*), 70, 123
adrenaline discharge by nerve stimulation and (*mammal*), 80, 15*P*
effected by (*cat*), 81, 295
all-or-none response in muscle initiated by (*frog*), 88, 3*P*
**Acetylcholine**, aneural heart affected by (*chick*), 86, 53*P*
anti-diuretic action of post-pituitary affected by (*dog*), 95, 226
assay methods for (*frog*), 82, 130
atropine antagonism on heart to (*frog*), 61, 549
blood and absence of (*ox*), 79, 249
and alleged occurrence of (*ox*), 82, 118
and content of (*mammal*), 82, 38
destruction of (*horse*), 70, 338
brain and presence of (*mammal*), 79, 1*P*
brain formation and identification of (*ox*), 89, 37*P*
bronchomotor response to (*guinea-pig*), 99, 67
calcium lack effect on liberation at synapse of (*cat*), 97, 412
cerebro-spinal fluid and appearance of (*dog*), 86, 277
and content of (*mammal*), 93, 45*P*
chorda stimulation and liberation of (*mammal*), 76, 15*P*
and saliva containing (*cat*), 81, 81
chorda vaso-dilator fibres and liberation of (*dog*), 86, 33*P*
colon metabolic changes and action of (*cat*), 86, 426
crossed extensor reflex affected by (*toad*), 97, 358
curarine antagonism on muscle to (*cat*), 87, 425
denervated muscle affected by (*frog, mammal*), 89, 438
stimulation by (*mammal*), 70, 117
denervated sympathetic ganglion affected by (*cat*), 91, 375
embryonic heart nerve development and action of (*Fundulus*), 84, 20
ergotoxine suppression of broncho-constriction caused by (*guinea-pig*), 96, 29*P*
exophthalmos production by (*dog*), 97, 383
'free' and 'bound' (*mammal*), 94, 11*P*
gastric vagus and transmitter action of (*dog*), 80, 16*P*
heart action and concentration of (*frog*), 61, 532
affected by ions with (*frog, rabbit*), 71, 437

**Acetylcholine**, heart destruction of (*frog*), 64, 127
electrical response affected by (*frog*), 67, xxxi; 69, 326
incubation with physostigmine and production of (*frog*), 82, 149
rate and blood pressure reaction to (*cat*), 64, xii
histamine potentiation of vaso-dilator action of (*dog*), 61, 198
injection speed and effect on muscle of (*cat*), 87, 403
intra-ocular pressure affected by (*dog*), 71, 19
intraventricular injection of (*cat*), 80, 410
causing cardiac irregularities (*cat*), 81, 384
knee jerk affected by (*cat*), 89, 181, 387
lactic acid on vaso-dilator action of (*cat*), 63, 175
liver glycogen formation from lactate affected by (*cat*), 80, 46
liver vascular reactions to (*P-L-Li*), 97, 322
methylene blue antagonism to (*frog*), 62, 160
motor end-plate affected by (*lizard*), 90, 82*P*
and liberation of (*mammal*), 86, 353
motor response to stimulation of cerebral cortex affected by (*cat*), 99, 314
nerve stimulation and liberation of (*cat*), 89, 9*P*
nervous system and distribution of (*mammal*), 99, 436
nervous tissues and content of (*dog*), 84, 261
neuro-muscular contracture and (*frog*), 76, 76
response to electrical stimulation with block by (*lizard*), 95, 59*P*
nictitating membrane response to (*cat*), 89, 303
sensitization by ganglion denervation (*cat*), 91, 382
ocular neuro-muscular response to (*cat*), 99, 393
placental blood vessels affected by (*man*), 93, 135
portal circulation affected by (*P-AL-Li*), 74, 364; (*cat*), 77, 399
pulmonary vessels affected by (*rabbit*), 74, 271; (*dog*), 75, 471; (*P-L*), 77, 151; (*cat*), 80, 70
quaternary ammonium salts synergism and antagonism to (*frog*), 88, 5*P*
**Acetylcholine**, quinine action on muscle with (*various*), 95, 57
rectus abdominis contraction and concentration of (*frog*), 61, 533
renal hypertension effect on blood pressure response to (*rabbit*), 99, 309
saliva and occurrence of (*cat*), 84, 33
salivary gland slice respiration affected by (*mammal*), 87, 278
seminal plasma and occurrence of (*man*), 84, 315
Sherrington phenomenon, relation to (*mammal*), 85, 1*P*
with sympathetic stimulation and (*mammal*), 86, 64
skeletal muscle, action potentials caused by (*cat*), 89, 224
hydrolysis of (*frog*), 89, 360
hydrolysis rate of (*lizard*), 92, 44
reaction to (*cat*), 87, 399; (*fowl*), 94, 103
stimulation and production of (*mammal*), 81, 39*P*
vaso-motor response to (*mammal*), 88, 349
sleep and hypothalamic centres affected by (*cat*), 83, 42*P*
spinal cord affected by (*dog*), 100, 340
spleen and isolation of (*mammal*), 68, 97
stomach and transmission of nerve impulses by (*cat*), 87, 79
strychnine convulsions depressed by (*cat*), 90, 312
submaxillary gland slice metabolism stimulated by (*cat*), 92, 441
sweat gland activity with nervous stimulation and (*cat*), 82, 121
stimulation and production of (*cat*), 81, 40*P*
sympathetic ganglion. *See* **Acetylcholine, sympathetic ganglion**
sympathetic salivary secretion depressor substance comparison with (*cat*), 85, 19
sympathetic vaso-dilators in muscle and adrenaline action with (*dog*), 83, 484
synthesis in sympathetic ganglion of (*cat*), 88, 272
test preparations suitable for (*various*), 79, 258
tetanus toxin affecting response of skeletal muscle to (*cat*), 96, 356
uterine cornua and cervix response to (*goat*), 81, 278
production on sympathetic stimulation (*dog*), 85, 300
uterus content after ovariectomy and oestrin (*rabbit*), 95, 253
vagus differential paralysis and (*frog*), 62, 89

**Acetylcholine**, vagus inhibition on heart and action of (*cat*), 82, 233
stimulation and eserine action on stomach liberating (*dog*), 81, 323
stimulation on heart and content of (*frog*, *rabbit*), 82, 282
water diuresis inhibition by (*dog*), 92, 16*P*
**Acetylcholine, sympathetic ganglion** after discharge and theory of, 84, 51*P*
differential paralysis to potassium and (*cat*), 86, 10*P*
liberation with pre-ganglionic stimulation only (*cat*), 94, 158
output of (*cat*), 88, 265
with potassium stimulation producing (*cat*), 86, 297
stimulation and output of (*cat*), 93, 1*P*
synapse and liberation of (*cat*), 80, 12*P*; (*cat*), 83, 106
synthesis of, 86, 40*P*; (*cat*), 96, 277
synthesis with glucose of (*cat*), 93, 46*P*
transmission and appearance of (*cat*), 81, 305
**Acetyl thyroxine**, oxygen consumption affected by (*rat*), 68, 398
**Acetylene**, blood and solubility of, 99, 49
cardiac output measurement by (*man*), 70, xxxix; 90, 104
**Achlorhydria**, peptic activity in (*man*), 67, 419
**Acholuric jaundice**, blood pH in (*man*), 64, xxi
red cell electrophoretic speed and sedimentation rate in (*man*), 95, 116
**Acid**, blood vessels affected by (*cat*), 65, 27
excretion, foodstuffs effect on (*man*), 78, 65
stomach muscle reaction to (*mammal*), 63, 56
**Acid-base equilibrium**, blood vessels affected by (*cat*), 65, 25
gastric acidity affected by (*man*), 83, 16*P*
skeletal muscle and (*frog*), 68, 295
**Acidosis**, ammonium chloride production of (*man*), 65, 412
blood phosphate changes with, 61, 42
gastric secretion affected by (*dog*), 75, 351
**Aciduria**, phosphate buffering in (*man*), 75, 29*P*
**Acoustic filters**, speech modification by, 77, 16*P*
**Acriflavin**, renal elimination of (*frog*, *rat*), 97, 437
**Action potential**, apparatus for measurement of, 61, 52; 63, 380; 65, 225; 66, xiii; 71, i; 83, 440; 84, 25*P*; 85, 28*P*; 87, 3*P*, 24*P*; 95, 62*P*.
auricle (*frog*), 69, 319
**Action potential**, cerebellum, frequency of (*cat*), 83, 32*P*
functional significance of (*cat*), 94, 67
cerebral cortex (*rabbit*), 81, 440
anaesthetics action on (*rabbit*), 81, 445; (*mammal*), 100, 176
cerebellar stimulation effect on (*cat*), 90, 39*P*
frequency of (*cat*), 83, 32*P*
stimulation effect on (*mammal*), 88, 127
white matter (*mammal*), 97, 174
affecting (*rabbit*), 90, 41*P*
cochlea and frequency of stimulation effect on (*cat*), 81, 403
cutaneous nerve (*frog*), 67, 176
and measurement of (*cat*), 61, 66
and skin stimuli effect on (*cat*), 95, 1
and vibratory stimuli effect on (*cat*), 97, 224
single preparation (*frog*), 72, 377
slow and fast (*frog*), 84, 250
depressor nerve (*cat*), 87, 78*P*
diphasic and monophasic relation in, 81, 1*P*
dorsal nerve root (*cat*) 81, 29*P*; (*frog*, *cat*), 92, 279
conduction direction in (*frog*), 100, 294
dorsal root reflexes relation to (*cat*), 94, 27*P*
hypothesis of origin of, 92, 310
latency of (*frog*), 100, 285
properties of (*frog*), 95, 41*P*
temperature effect on (*frog*), 96, 225
eighth nerve (*frog*), 84, 14*P*
fin nerve (*Sepia*), 83, 21*P*
forebrain with olfactory discharge (*fish*), 94, 454
ganglion (*Dytiscus*), 72, 132
giant nerve (*squid*), 98, 47; (*earthworm*), 77, 23*P*
grey matter and electrotonus, 86, 29*P*
heart (*frog*), 67, xxxi; 69, 316; 84, 433. *See also* **Electrocardiogram**
inferior mesenteric ganglion (*cat*), 93, 464
labyrinth (*frog*), 86, 117
Matthews oscillograph and recording of, 65, 240
mid-brain (*goldfish*), 71, 128
motor cortex stimulation (*mammal*), 88, 152
motor end-plate (*cat*), 97, 44, 72
motor neurone (*cat*), 61, 88; 71, xxi; 83, 185; 89, 43*P*
muscle. *See* **Plain muscle** and **Skeletal muscle**
nerve. *See* **Nerve**
nictitating membrane (*cat*), 86, 57*P*; 90, 31, 68

**Action potential**, olfactory bulb (*hedgehog*), 100, 466
olfactory stalk (*fish*), 94, 441
olfactory tract (*cat*), 100, 469
optic ganglion (*Dytiscus*), 75, 26*P*; 91, 66
optic lobe (*goldfish*), 71, 128
optic nerve (*eel*), 63, xxiii; 63, 383; 65, 275
retinal potentials relation to (*cat*), 77, 224; (*frog*), 83, 359
pain (*cat, frog*), 62, 33; (*frog*), 72, 388; 74, 17*P*, 93, 324; (*cat*), 95, 9
pelvic nerve and bladder (*cat*), 86, 401; (*dog*), 89, 2
phrenic nerve (*rabbit*), 66, 81
pressure receptors (*cat*), 61, 469; (*frog*), 84, 252; (*cat*), 97, 209; (*mammal*), 100, 167
proprioceptive nerve (*frog*), 67, 176; 71, 64
pyramidal tract (*mammal*), 95, 27*P*; 97, 153; (*mammal*), 97, 157, 186
pyriform lobe (*hedgehog*), 100, 461
respiratory centre (*goldfish*), 71, 123
retina. *See* **Retina**
Ruffini organ (*cat*), 78, 31
saccular nerve (*frog*), 81, 23*P*
semicircular canals (*frog*), 86, 140; (*ray*), 99, 89
sensory nerve. *See* **Sensory nerve impulse**
sixth nerve and nystagmus (*cat*), 97, 12
skin (*man*), 85, 27*P*; 86, 23*P*; 87, 24*P*
sound reproduction, 66, xiii
spinal cord (*frog*), 65, 281; (*frog, cat*), 92, 276; (*frog*), 95, 39*P*; 100, 283
stellar nerve (*Sepia*), 83, 21*P*
stretch receptor (*frog*), 71, 64; (*cat*), 85, 85; 86, 405; (*frog, mammal*), 93, 316
superior cervical ganglion (*cat*), 85, 179, 207, 464; 89, 41*P*
sympathetic ganglion. *See* **Sympathetic ganglion**
sympathetic nerve (*frog*), 70, xx; (*mammal*), 74, 115; (*frog*), 100, 11*P*
types of (*frog*), 78, 228
tactile receptor (*cat*), 61, 468; (*frog*), 72, 393; 79, 500; 84, 252; (*cockroach*), 87, 6*P*; (*frog*), 94, 173; (*cat*), 95, 5; 97, 209; (*mammal*), 100, 170
tendon receptors (*cat*), 78, 31; (*frog, mammal*), 93, 316
thalamus (*mammal*), 100, 171
tongue and taste (*cat*), 96, 41*P*
tonus and (*crab*), 70, xxiv
tooth (*cat*), 95, 55*P*; 97, 207, 220
**Action potential**, urethra (*dog*), 89, 9
utricular macula (*frog*), 86, 135
vagina (*rabbit*), 97, 139; 98, 480
vagus nerve (*mammal*), 61, 67; (*cat*), 79, 334
ventricle (*frog*), 69, 319
veratrine action on (*crab*), 77, 27*P*; 83, 447; (*cat*), 96, 124
vibration receptors (*frog*), 81, 23*P*; 86, 130; (*frog, mammal*), 93, 312; (*cat*), 97, 220
vibrissae (*cat*), 98, 163
wave, analysis in nerve (*frog*), 68, 19
**Acute intestinal obstruction**, nervous factor in death from (*cat*), 91, 16*P*
**Adaptation**, ammonium chloride effect on high altitude (*man*), 78, 404
brightness discrimination affected by (*man*), 92, 406
cutaneous nerve-endings and rate of (*frog*), 94, 170
eye intensity discrimination and (*man*), 87, 30
high altitude and (*man*), 71, 47
lung stretch receptors and (*cat*), 79, 338
olfactory organ and (*fish*), 94, 450
pain receptors showing (*cat, frog*), 62, 38
plain muscle and two types of (*frog*), 96, 378
rhythmic response and (*cat*), 90, 77
retina and (*eel*), 65, 293
sensory end-organ single preparation and (*frog*), 71, 95
in muscle and (*frog*), 61, 157
sensory nerve impulses from skin and (*cat*), 61, 472
skeletal muscle end-organ and (*frog*), 72, 167
sensory nerve endings and (*cat*), 78, 10
tactile nerve ending and ions action on (*frog*), 79, 502
tooth pressure sense endings and (*cat*), 97, 210
vibrissae sensory organs and (*cat*), 98, 168
**Addison's disease**, adrenal cortical extract effect on (*man*), 72, 4*P*
**Adductor**, double motor innervation of (*crayfish*), 88, 78
**Adenine compounds**, physiological activity of (*mammal*), 72, 288
small intestine affected by (*frog*), 95, 54*P*
**Adenosine**, activity in relation to A.T.P. (*mammal*), 80, 345
coronary vessels affected by (*rabbit*), 70, xxviii
depressor activity of (*rabbit*), 72, 76
estimation by action on fowl's rectal caecum, 85, 5

Adenosine, heart affected by (*mammal*), 68, 213
heart block caused by (*guinea-pig*), 67, XXXVI
heart rate affected by (*man*), 81, 10*P*
physiological actions of (*mammal*), 72, 288
placental blood vessels affected by (*man*), 93, 138
pulmonary vessels affected by (*P-L*), 77, 154
skeletal muscle vaso-motor response to (*mammal*), 88, 350
substance P separate from (*mammal*), 83, 6
Adenosine triphosphate (A.T.P.). *See* Adenyl pyrophosphate
Adenyl pyrophosphate, biological significance of linkages in (*mammal*), 80, 345
heart in normal and asphyxiated state and changes in (*mammal*), 91, 314
muscle containing (*fly*), 80, 228
pH changes in muscle and breakdown of (*frog*), 94, 472
pulmonary vessels affected by (*P-L*), 77, 154
skeletal muscle fermentation and action of (*rabbit*), 75, 19*P*
Adenylic acid, activity in relation to A.T.P. (*mammal*), 80, 345
distribution and physiological actions of (*mammal*), 72, 290
heart affected by (*mammal*), 68, 213
heart beat affected by (*rabbit*), 74, 150
heart block caused by (*guinea-pig*), 67, XXXVI
heart rate affected by (*man*), 81, 10*P*
isolation from heart of (*bullock*), 68, 216
Adipose tissue, factors affecting deposition of (*mammal*), 100, 385
glycogen deposition in (*mammal*), 100, 388
Adrenal cortex, Addison's disease treated by extract of (*man*), 72, 4*P*
adrenalectomized animals affected by (*cat*), 75, 413
adrenergic nerve transmission influenced by (*cat*), 95, 282
anterior pituitary extract dual action on (*mammal*), 100, 1*P*
gonadectomy effect on (*rat*), 79, 18
oestrin action after ovariectomy affected by (*rat*), 92, 13*P*
oestrus effect on (*rat*), 76, 255
pituitary gland relation to (*rabbit*), 83, 170
pneumin production by (*cat*), 67, III
pregnancy and lactation effect on (*rat*), 77, 159
vitamin $B_1$ phosphorylation affected by (*rat*), 97, 1*P*
Adrenal cortical extract, growth and maturation affected by (*mouse*), 76, 103
test animal suitability for (*rat*), 86, 242
testis weight relation to dosage required (*drake*), 91, 18*P*
Adrenal cortical hormone, adrenalectomy mortality rate affected by (*rat*), 84, 77
assay (*drake*), 89, 64
assay by survival time (*rat*), 87, 222
blood pressure responses after adrenalectomy affected by (*cat*), 96, 156
methods of testing for (*cat*), 67, 343
riboflavin effect on action of (*rat*), 98, 380
sympathetic nerve stimulation fatigue affected by (*cat*), 94, 271
Adrenal gland, acetylcholine and choline distribution in (*mammal*), 81, 37*P*
blood pressure curves affected by presence of (*mammal*), 70, 234
castration effect on (*rat*), 91, 367
cholesterol changes with female reproductive cycle (*rat*), 90, 296
content of (*rabbit*), 66, 251
insulin action on, 69, VII; (*rabbit*), 70, 444
metabolism and (*rabbit*), 66, 256
sex differences in (*rabbit*), 68, 260
diet, insulin and thyroxine action on adrenaline content of (*rat*), 80, 305
exercise effect on weight of (*rat*), 85, 165
exhaustion and recovery, factors affecting (*cat*), 68, 313
glycotropic factor action affected by (*rabbit*), 92, 200
gonadectomy effect on (*rat*), 79, 1
heart rate in exercise affected by denervation of (*dog*), 83, 320
liver glycogen under ether action and (*cat*), 73, 78
male hormone action on (*rat*), 91, 368
'novadrenine' not demonstrated in (*mammal*), 78, 462
oestrous cycle affecting (*rat*), 76, 247
ovarian hormone effect on weight of (*rat*), 83, 18
parathyroid antagonism to (*cat*), 66, 455
scurvy and inanition effect on adrenaline content of (*guinea-pig*), 83, 478
skeletal muscle glycogen affected by (*cat*), 90, 56*P*
Adrenal medulla, adrenaline state in (*mammal*), 79, 455
body temperature and nervous control of (*cat*), 65, XXV
chloralose action on stimulation of (*cat*), 65, 451

**Adrenal medulla**, cholinergic nature of nerve supply to (*cat*), 81, 288
exercise and temperature effect on (*rat*), 81, III
morphine action on (*cat*), 65, XXXII
novadrenine in (*ox*), 76, 181
oestrus cycle and (*rat*), 61, III
venom and lysolecithin action on (*cat*), 99, 104
**Adrenalectomy**, adipose tissue deposition affected by (*mammal*), 100, 400
adrenal cortical extract efficacy after (*cat*), 72, 11*P*
anaesthetic hyper glycaemia affected by (*rabbit*), 78, 370
blood cholesterol affected by (*rabbit*), 75, 34*P*
blood histamine affected by (*rabbit*), 99, 241
blood sugar and glucose tolerance affected by (*cat*), 81, 95
cortical extract effect following (*cat*), 75, 413
decerebrate preparation and survival time following (*cat*), 72, 9*P*
histamine action on blood pressure after (*cat*), 61, 205
insulin action on liver glycogen affected by (*rabbit*), 82, 407
on muscle and liver glycogen following (*rat*), 80, 318
liver fat affected by (*cat*), 81, 43*P*
mortality after improved operation for (*rat*), 84, 70
plumage affected by (*birds*), 86, 35*P*
potassium action on circulation after (*cat*), 99, 226
pregnancy affected by (*rat*), 98, 255
progesterone effect on survival time after (*rat*), 95, 12*P*
riboflavin effect on survival time after (*rat*), 98, 375
salt effect on survival time following (*rat*), 87, 224
skeletal muscle chemical changes during contraction affected by (*cat*), 82, 311
fatigue relation to (*cat*), 67, 347
glycogen affected by adrenaline after (*rat*), 88, 193
lactic acid production affected by (*guinea-pig*), 81, 36*P*
phosphate compounds affected by (*cat*), 80, 29*P*
twitch affected by tetanus and adrenaline following (*cat*), 95, 19*P*
survival time after (*rabbit*), 77, 37*P*; (*guinea-pig*), 88, 235
and factors influencing (*rat*), 86, 229
and seasonal variation (*drake*), 89, 68
**Adrenalectomy**, sympathetic nerve stimulation fatigue after (*cat*), 94, 261
sympathetic pressor response affected by (*cat*), 96, 146
**Adrenaline**, acetylcholine in cerebro-spinal fluid with eserine and (*dog*), 86, 280
in nervous discharge of (*mammal*), 80, 15*P*
in normal nervous discharge of (*cat*), 81, 288
production in salivary gland stimulated by (*cat*), 82, 297
adrenal medulla and state of (*mammal*), 79, 455
adrenergic nerve stimulation liberation of (*rabbit*), 94, 94; 96, 385
alkali sensitization of plain muscle to (*cat*), 62, 84
amine oxidase action and ephedrine effect, 97, 265
amines related and actions of (*mammal*), 76, 224; 81, 422; 97, 453; 98, 424
amino acids action on oxidation rate of (*rabbit*), 69, XXIV
anaerobic uterus and action of (*cat*), 66, 240
apnoea, carotid sinus action in (*dog*), 69, 282
mechanism of (*cat*), 69, 493
arteries affected by (*mammal*), 61, XVIII
blood lactic acid affected by (*man*), 71, 275
blood phosphate affected by (*cat*), 76, 391
blood potassium affected by (*cat*), 80, 7*P*
blood pressure after ether and (*cat*), 63, 152
response after adrenalectomy to (*cat*), 96, 155
blood sugar after liver exclusion affected by (*rabbit*), 93, 162
after sympathectomy affected by (*dog*), 95, 432
blood and tissue inactivation *in vitro* of, 86, 35*P*
body temperature and secretion of (*cat*), 65, XXV; 68, 313
broncho-constrictor action following pituitrin (*dog*), 89, 26*P*
bronchomotor response to sympathetic stimulation and (*guinea-pig*), 99, 63
calcium and potassium effect on vascular response to (*rabbit*), 99, 120
cardiac depressor nerve impulses and (*rabbit*), 61, 67
metabolism in aglycaemia affected by (*dog*), 80, 183
cardio-inhibitory centre affected by (*dog*), 76, 7*P*; 77, 68

Adrenaline, catechol oxidase inactivation of, 94, 19*P*
central depressor action of (*rabbit*), 92, 111
circulation affected by (*man*), 65, xxii
chloralose action on (*cat*), 65, 454
cocaine action on tissues with (*mammal*), 71, 169
colon metabolic changes and action of (*cat*), 86, 426
coronary blood flow affected by (*rabbit*), 61, 818; (*dog*), 64, 189
circulation affected by (*dog H-L*), 68, 328; (*mammal*) 74, 14.
denervated muscle and action of (*mammal*), 70, 118
response to acetylcholine affected by (*cat*), 89, 447
derivatives, liver oxidation of (*mammal*), 89, 39*P*
diuresis, mechanism of (*H-L-K*), 73, 151
duodenum inhibition by (*rabbit*), 70, 147
electromyogram in decerebrate rigidity affected by (*cat*), 87, 93*P*
embryonic blood sugar affected by (*chick*), 72, 418
ephedrine potentiation of (*frog, rabbit*), 94, 91
ergotamine action on blood lactate affected by (*mammal*), 78, 96
eserine effect on uterine response to (*guinea-pig*), 98, 492
potentiation on nictitating membrane by (*cat*), 89, 301
ester, inactivation of adrenaline by means of (*man*), 98, 25*P*
estimation, methods of, 79, 456
ether effect on action of (*cat*), 81, 27*P*
fluorescent test for, 80, 9*P*
glomerular pressure affected by (*H-L-K*), 73, 151
glycogen distribution affected by (*cat*), 73, 103; (*rabbit*), 79, 289
guanidine potentiation of, 88, 2*P*
heart affected by ions with (*frog, rabbit*), 71, 433
glycogen: blood sugar relationship affected by (*rat H-L*), 99, 211
usage of sugar and lactate affected by (*H-L*), 80, 31
volume and work with (*tortoise*), 65, 151
histamine antagonism on blood vessels to (*cat*), 61, 191
liberation affected by (*cat*), 71, 33
potentiation of vaso-dilator action of, 100, 17*P*
production by heart under action of (*H-L*), 86, 439
Adrenaline, humoral transmitter in discharge of (*cat*), 81, 288
hyperglycaemia, atropine action on (*rabbit*), 79, 239
hypophysectomy effect on (*rabbit*), 80, 200
vagus section and (*rabbit*), 61, 880
hypophysectomy action on blood lactate changes with (*rabbit*), 88, 417
effect on blood-sugar response to (*rabbit*), 87, 1
inactivation by blood *in vitro* of, 87, 8*P*
by tissues and system concerned (*mammal*), 90, 1
*in vitro* by blood and tissues (*cat*), 91, 233
*in vivo* of (*man*), 98, 381
inferior vena cava affected by (*mammal*), 77, 174
insulin hypoglycaemia after hypophysectomy affected by (*rabbit*), 80, 198
intestine movements affected by (*Amphibia*), 75, 106
intra-ocular pressure affected by (*dog*), 71, 6
isolated artery and action of (*mammal*), 64, 72
ketonuria and action of (*rat*), 64, xxii
knee jerk affected by (*cat*), 87, 92*P*; 88, 476
lacteal contraction and (*mammal*), 63, 2
leucocytosis resulting from (*man*), 75, 121
liver glycogen and (*dog*), 65, 54
after hypophysectomy in young affected by (*rabbit*), 88, 412
liver inactivation in different species of, 93, 54*P*
oxidation and autoxidation of, 90, 6
vascular reactions to (*P-L-Li*), 97, 320
local anaesthetics affecting actions of (*mammal*), 97, 291
inhibition of oxidation of, 97, 301
morphothebaine-dimethylether antagonism to (*various*), 100, 66
nerve action potentials affected by (*cat*), 99, 201
impulse transmission affected by (*dog*), 97, 256
nictitating membrane denervation effect on response to (*cat*), 91, 459
sensitization by ganglion denervation (*cat*), 91, 380
oral administration and effective dose of (*man*), 98, 366
oxidase, distribution and properties of (*mammal*), 89, 6*P*

**Adrenaline**, oxidation, inhibitors of, 90, 12
*in vivo* of (*cat*), 87, 87*P*
rate in gut wall of (*rabbit*), 69, xv
tissue and amino-acid effect on (*rabbit*), 72, 88
oxygen uptake with oxidase systems action on, 96, 133
usage of muscle affected by (*dog*), 99, 187
pharmacological actions of amines related to (*mammal*), 95, 485
phenolases inactivation of, 98, 130
pituitary extract effect on glycaemic response to (*rabbit*), 87, 13*P*
pituitary gland relation to action on carbohydrate metabolism of (*rabbit*), 83, 157
placental blood vessels affected by (*man*), 93, 133
glycogen reaction to (*rabbit*), 67, 364
plain muscle action potentials resulting from (*cat*), 90, 84
electrical response to (*cat*), 87, 87*P*
tonus and (*dog*), 69, 397
plant extracts with properties of (*broom*), 83, 37*P*
portal circulation affected by (*cat*), 66, 274; (*P-AL-Li*), 74, 358; (*cat*), 75, 247
potassium antagonism on circulation to (*cat*), 99, 230
liberation from liver with (*cat*), 86, 9*P*
liberation from perfused liver with (*cat*), 87, 181
prostate extracts showing actions of (*mammal*), 81, 102
pseudo-motor contracture of lip affected by (*dog*), 73, 57
pulmonary circulation affected by (*mammal*), 67, 77; (*rabbit*), 74, 276
gas embolism effects altered by (*cat*), 87, 18
oedema affected by (*cat, H-L*), 75, 294
vessels affected by (*dog*), 75, 471; (*P-L*), 77, 144; (*cat*), 80, 68
renal blood flow affected by (*dog*), 89, 20
hypertension effect on blood pressure response to (*rabbit*), 99, 306
respiratory quotient affected by (*rabbit*), 85, 334
reversal, factors concerned in (*mammal*), 62, 52
salivary secretion affected by (*cat*), 83, 43*P*
scurvy and inanition effect on adrenal gland content of (*guinea-pig*), 83, 478
serum potassium affected by (*cat*), 82, 393; 86, 219; 90, 303
**Adrenaline**, Sherrington phenomena with sympathetic stimulation and (*mammal*), 86, 68
skeletal muscle blood flow during work affected by (*dog*), 95, 209
glycogen affected by (*cat*), 70, 67; 83, 31
after adrenalectomy, thyroidectomy and hypophysectomy affected by (*rat*), 88, 191
and liver glycogen affected by (*rat*), 80, 314
oxygen usage affected by (*dog*), 99, 187
twitch affected by (*frog*), 78, 172
vaso-motor response to (*mammal*), 88, 348
skin and intestine blood vessels affected by (*mammal*), 87, 257
spinal cord stimulation by acetylcholine affected by (*dog*), 100, 342
spleen size affected by (*dog*), 68, 378
stomach and action of (*rabbit*), 61, 262
movements affected by (*mammal*), 70, 258
submaxillary gland slice metabolism stimulated by (*cat*), 92, 443
slice respiration affected by (*cat*), 87, 280
sugar production in perfused liver and (*mammal*), 61, 506
sympathetic nerve discharge affected by (*mammal*), 74, 122
stimulation fatigue affected by (*cat*), 94, 263
sympathetic vaso-dilators augmented by (*dog*), 75, 145
sympathin and oxidation of (*mammal*), 87, 7*P*
sympathomimetic amines vaso-constrictor action compared with (*cat*), 98, 266
synthalin on blood sugar and action of (*rabbit*), 65, 88
systemic blood flow affected by (*dog*), 76, 339
temperature effect on circulation response to (*frog*), 75, 37
on gut response to (*rabbit*), 92, 26*P*
thalamus paralysis effect on secretion of (*dog*), 90, 57*P*
thyroidectomy effect on blood sugar response to (*rabbit*), 86, 52
tissue gas tensions affected by (*rabbit*), 75, 23*P*
tissues and oxidation of (*rabbit*), 69, xv
toxaemia affecting action on carbohydrate metabolism of, 75, 399

**Adrenaline**, uterine blood flow and contractions with (*cat*), 92, 14
cornua and cervix response to (*goat*), 81, 278
muscle response to (*rabbit*), 61, 142
response with oestrin and progesterone to (*cat*), 92, 7
uterus in pregnancy affected by (*guinea-pig*), 74, 136
vagal inhibition of heart affected by (*mammal*), 83, 336
vagina action potentials following (*rabbit*), 97, 140
vaso-constrictor action, selective nature of (*cat*), 69, 171
vaso-dilatation, anaesthetics and (*cat*), 62, XII
atropine effect on (*mammal*), 88, 11*P*
ether action and (*cat*), 67, 350
sympathetic nerve stimulation comparison with (*dog*), 83, 490
vaso-dilator action of (*cat*), 61, 207; (*cat, dog*), 63, 201; (*cat*), 80, 429
on muscle of (*cat*), 84, 344
venom and lysolecithin action on output of (*cat*), 99, 106
water diuresis in denervated kidney affected by (*dog*), 83, 349
**Adrenergic-cholinergic** relationship in salivary gland (*cat*), 82, 301
**Adrenergic nerves**, adrenal cortex influence on transmission in (*cat*), 95, 282
definition of, 80, 10*P*
ephedrine potentiation of (*frog, mammal*), 94, 91
intestine response to substance liberated with stimulation of (*fowl*), 96, 104
stimulation, adrenaline liberation with (*rabbit*), 96, 385
**Adrenergic transmission**, calcium and potassium effect on (*rabbit*), 99, 119
**Adrenergic vaso-dilators**, skin and intestine (*mammal*), 87, 260
**Adrenochrome**, physiological activity of (*cat*), 97, 303
**Adrenoxine**, production from adrenaline and actions of, 92, 28*P*
**Aesthiometer**, differential type of, 77, 16*P*
**Aetioporphyrin**, haemoglobin regeneration affected by (*rabbit*), 89, 403
**Afferent nerve.** *See* **Sensory nerve**
**After-discharge**, cardio-inhibitory reflex and, 71, 418
cerebral cortex stimulation and (*rabbit*), 88, 147
crossed extensor reflexes and (*cat*), 67, 100
**After-discharge**, depressor reflex and (*mammal*), 66, 398
motor cortex and pyramidal tract activity showing (*mammal*), 97, 190
optic ganglion dark rhythm and (*Dytiscus*), 91, 72
spinal reflex and factors affecting (*Amphibia*), 90, 45*P*
**After-image**, black, cause of (*man*), 73, 247
latency of (*man*), 66, 281; 69, 423
mathematical treatment of, 73, 262
**After-negativity**, non-medullated nerve and (*Maia*), 87, 160
**'After-positivity'**, nerve action potential and (*frog*), 68, 23
**After-potential**, nerve and ganglion similarity of (*cat*), 96, 128
**After-sensations**, temperature changes in skin and (*man*), 69, 107
**Age**, enamel permeability changes with (*dog*), 72, 321
foetus weight relation to (*goat*), 83, 194
haemoglobin types in blood variation with (*man*), 85, 118
heart rate affected by asphyxia relation to (*rabbit*), 93, 90
ovulation response to P.U. affected by (*mouse*), 75, 44
pulse wave velocity and artery extensibility with (*man*), 69, 389
serum protein changes with (*dog*), 73, 305
thymectomy affecting puberty in relation to (*rat*), 74, 54
urea clearance variation with (*man*), 99, 278
vagal reflexes with asphyxia affected by (*rabbit*), 95, 187
**Age/weight ratio**, adrenalectomy survival time influenced by (*rat*), 86, 238
**Agglutinin titre**, fat effect on (*man*), 99, 1*P*
**Aglycaemia**, heart metabolism in (*dog*), 80, 179
**Aglycaemic heart**, fat metabolism of (*rat, H-L*), 99, 219
metabolites used by (*H-L*), 94, 337
**Air-force tests**, schoolboys assessed by, 65, XIV
**Alanine**, adrenaline oxidation affected by (*rabbit*), 72, 102
alcohol metabolic rate affected by (*cat*), 98, 249
liver glycogen recovery affected by (*cat*), 76, 428
**Alanyl-thyroxine**, oxygen consumption affected by (*rat*), 68, 395
**Albumin**, egg, osmotic pressure of, 66, V

**Albuminuria**, normal occurrence of (*rat*), 79, 191
water diuresis inhibition causing (*dog*), 81, 250
**Alcohol** absorption, $CO_2$ in small intestine affecting (*cat*), 62, 13
auricle conduction affected by (*tortoise*), 61, 294
blood sugar affected by (*cat*), 66, 105
diuresis, pituitrin action on (*man*), 76, 379
gastric secretion resulting from (*man*), 65, 81
glucose absorption affected by (*cat*), 66, 102
heart affected by (*frog*), 63, 21
heart beat affected by (*rabbit*), 62, VI
metabolic rate determination of (*cat*), 98, 228
and factors affecting (*cat*), 98, 239
nerve conduction affected by (*frog*), 61, 308
from single end organ affected by (*frog*), 73, 389
pituitrin action on blood sugar affected by (*cat*), 77, 247
sugar absorption from stomach and (*cat*), 65, 381
sugar tolerance affected by (*man*), 71, 405
**Alcohol check** for closed metabolism apparatus, 78, 16*P*
**Alcohols**, synergism of other drugs with (*frog heart*), 63, 19
**Aldehyde**, cell growth *in vitro* affected by (*chick*), 96, 16*P*
histamine inactivation by, 70, 358
**Alimentary haemorrhage**, renal function affected by (*man*), 99, 344
**Alimentary hyperglycaemia**, autonomic system action on (*mammal*), 80, 48
**Alkali**, blood vessels affected by (*cat*), 65, 29
stomach muscle reaction to (*mammal*), 63, 57
vaso-constrictor action of (*cat*), 61, VIII
**Alkali reserve**, blood clotting time affected by changes in (*cat*), 83, 50
citrate injections effect on (*cat*), 85, 168
and decomposition products effect on (*cat*), 85, 173
decapitate eviscerated preparation and (*cat*), 68, 268
foetal and maternal comparison of (*goat*), 80, 493
**Alkaline tide**, foodstuffs effect on (*man*), 74, 10*P*
**Alkalosis**, gastric secretion affected by (*man*), 96, 25
**All-or-none response**, acetylcholine action on muscle and (*cat*), 89, 225
nerve (*frog*), 61, 164
plain muscle units (*cat*), 90, 49
**Alpha contraction**, propagation of (*frog*), 75, 456
**Alpha curve**, chronaxie in slow muscle and (*Holothuria*), 78, 381
**Alpha excitability**, general occurrence in muscles of (*frog*), 72, 265
identification of (*frog*), 75, 445
**Alpha substance**, nerve supply to (*frog*), 74, 231
skeletal muscle and presence of (*frog*), 70, 328
**Alternating current**, ions interaction on plain muscle with (*frog*), 96, 368
plain muscle response affected by temperature (*frog, Mytilus*), 98, 13
viscosity affected by (*Mytilus*), 88, 495
potassium stimulation of plain muscle comparison with (*Mytilus*), 94, 5
**Alveolar air**, aqueous vapour pressure in (*man*), 77, 35
arterial blood gas pressures relation to (*man*), 68, 277
automatic sampling of (*man*), 62, 262
carbon dioxide measurement in exercise (*man*), 65, 391
continuous sampling of (*man*), 64, 108
exercise at high altitude effect on (*man*), 71, 59
expiration depth effect on composition of (*man*), 98, 75
high altitude effect on (*man*), 82, 481; 96, 34*P*
sampling, errors in (*man*), 63, 163
stethographic control on accuracy of (*man*), 78, 11*P*
'venous pulmonary air' relation to (*man*), 96, 13
**Alveolar carbon dioxide**, high altitude with ammonium chloride effect on (*man*), 78, 408
inspiratory resistance effect on (*man*), 84, 169
measurement of (*man*), 64, XVII
tension, arterial blood relation at high altitude to (*man*), 71, 53
arterial pH changes with (*man*), 74, 475
chloralose effect on (*cat*), 99, 85
exercise in different subjects affecting, 69, 276
gastric secretion effect on (*man*), 70, 186
mild exercise effect on (*man*), 69, 226
respiratory quotient relation to (*man*), 91, 59

**Alveolar oxygen**, high altitude with ammonium chloride effect on (*man*), 78, 408
tension, arterial blood relation at high altitude to (*man*), 71, 53
**Amine oxidase**, actions of, 91, 13*P*
diamines affected by, 95, 30*P*
distribution in tissues (*Sepia*), 99, 364
ephedrine action on, 93, 7*P*
adrenaline oxidation by, 97, 268
local anaesthetics action on, 97, 302
**Amines**, tadpoles and action of, 64, 253
**Amino acids**, absorption and distribution in body fluids of (*cat*), 89, 269
adrenaline oxidation rate affected by (*rabbit*), 69, xxiv; 72, 101
carbamino compounds of, 80, 158
heart usage of (*frog*), 72, 458; (*H-L*), 86, 1
in aglycaemia of (*H-L*), 82, 18*P*
iodoacetate effect on aerobic heart usage of (*frog*), 90, 340
liver glycogen formation and specific dynamic action of (*cat*), 87, 113
magnesium and calcium salts solubility affected by, 100, 17*P*
phosphate transfer in muscle extract affected by, 100, 17*P*
**Ammonia**, plain muscle response to A.C. and potassium affected by (*Mytilus*), 92, 64
urea formation in perfused liver from (*rat*), 100, 445
**Ammonia excretion**, basal metabolism relation with (*man*), 65, 247
**Ammonium chloride acidosis**, blood changes in (*man*), 65, 412
high altitude adaptation affected by (*man*), 78, 404
**Amniotic fluid**, oestrin in (*mammal*), 62, 391
**Amplifier**, modified balanced-input, 85, 40*P*
multiple recording type of, 81, 28*P*
simple direct-coupled, 91, 31
universal, 93, 25*P*
**Ampullae**, spontaneous discharge from (*ray*), 99, 93; (*dogfish*), 86, 43*P*
**Amyl alcohol**, auricle conduction affected by (*tortoise*), 61, 294
**Amyl nitrite**, coronary circulation affected by (*dog H-L*), 68, 325
heart and action of (*dog*), 64, 376
**Amylase**, secretin action on pancreatic output of (*cat*), 100, 84
**Amytal**, adrenaline action on glycogen distribution with (*cat*), 73, 106
alcohol diuresis inhibited by (*cat*), 76, 384
**Amytal**, blood sugar affected by (*cat*), 66, 105
and liver glycogen affected by (*cat*), 76, 398
glycogen of liver and muscle affected by (*cat*), 73, 74
recovery rate from exercise affected by (*dog*), 70, 285
subarachnoid space saline absorption affected by (*dog*), 93, 426
vagus action on heart affected by (*mammal*), 69, xii
vagus reversal on stomach caused by (*cat*), 75, 216
**Anaemia**, carotid sinus denervation effect on (*rabbit*), 93, 75
pituitrin action on water balance and (*mammal*), 94, 124
plasma auto-oxidation in (*rabbit*), 65, 1
spleen size and (*dog*), 64, 11
volume affected by (*rabbit*), 66, 74
splenic blood concentration and sedimentation rate affected by (*cat*), 94, 419
X-ray production of (*mammal*), 68, iv
**Anaerobic delayed heat** in muscle (*frog*), 62, 203; 75, 277
**Anaerobic heart**, carbohydrate metabolism of (*frog*), 80, 457
metabolism of (*frog*), 75, 321
phosphagen changes in (*frog, tortoise*), 75, 335
**Anaerobic heat**, iodoacetate action on muscle and (*frog*), 72, 439
**Anaerobic nerve**, quaternary ammonium salts action on (*crab, frog*), 79, 79
veratrine action on (*frog*), 79, 68
**Anaerobic recovery**, muscle *p*H changes during (*frog*), 98, 472
**Anaerobic recovery heat**, 'alactacid' conditions in muscle effect on (*frog*), 98, 462
**Anaerobic resting heat**, nerve and (*frog*), 76, 172
**Anaerobic ventricle**, lactic acid production in (*frog*), 82, 266
**Anaerobiosis**, intestine contractions affected by (*mammal*), 85, 251
nerve heat production in (*crustacean*), 77, 128
nerve injury potential in (*crustacean*), 65, xxviii; 67, 335
plain muscle metabolism in (*Mytilus*), 87, 60
skeletal muscle efficiency during (*frog*), 82 258
efficiency with rest and activity in (*frog*), 91, 259

**Anaerobiosis**, skeletal muscle impedance changes in (*frog*), 89, 142
phosphagen changes during (*ray*), 65, 19
phosphate changes with (*frog*), 68, 206
sense organ fatigue and (*frog*), 67, 279
stretch response affected by (*frog*), 74, 444
*See also* Oxygen lack
**Anaesthesia**, acetylcholine action on skeletal muscle affected by (*cat*), 87, 405
adrenaline vaso-dilatation affected by (*cat*), 62, xii
anti-diuretic hormone action affected by (*rabbit*), 98, 405
bladder and absorption of (*cat*), 93, 53*P*
blood cholesterol affected by (*rabbit*), 77, 97
blood pressure changes with over-ventilation affected by (*cat*), 70, 302
reflexes with (*rabbit*), 64, 318
blood sugar and liver glycogen affected by (*cat*), 76, 395
carotid sinus reflexes affected by (*dog*), 90, 58*P*
cerebellar electrical activity affected by (*cat*), 94, 72
cerebral cortex action potentials affected by depth of (*rabbit*), 81, 443
cerebral cortical activity with sense organ stimulation affected by (*mammal*), 100, 176
chronaxie affected by (*cat*), 62, 120
defaecation reflexes affected by (*cat*), 78, 212
eserine effect on muscle response to stimulation and (*mammal*), 89, 51
liver glycogen affected by (*cat*), 71, xxv
motor cortex and pyramidal tract activity affected by (*mammal*), 97, 163
panting reflex affected by (*dog*), 77, 328
polyuria after hypophysectomy affected by (*dog*), 98, 200
posture affected by (*mammal*), 70, xxviii
respiratory cycle affected by (*dog*), 80, 274
retinal action potentials affected by (*cat*), 77, 213
skeletal muscle responses to change in stimulation rate with (*cat*), 82, 88
sensory nerve-endings affected by (*cat*), 78, 41
tone affected by depth of (*cat*), 71, 300
splenic blood sedimentation rate affected by (*cat*), 94, 416
water absorption and excretion affected by (*rat*), 76, 294
water diuresis affected by (*dog*), 68, 39
after intravenous administration affected by (*mammal*), 78, 452
**Anaesthetic hyperglycaemia**, adrenal function in (*rabbit*), 78, 370
adrenal gland relation to (*rabbit*), 75, 40*P*
**Anal canal**, colon stimulation effect on (*cat*), 78, 213
friction stimulus effective in (*cat*), 74, 14*P*
**Anal sphincters**, reflex interdependence of (*cat*), 78, 30*P*
**Anaphylactic shock**, H substance origin in (*guinea-pig*), 86, 50*P*
heparin liberation in (*dog*), 99, 434
histaminase action of lung perfusion fluid after (*guinea-pig*), 83, 3*P*
histamine relation in uterine reaction to (*guinea-pig*), 86, 51*P*
release from organs in (*guinea-pig*), 90, 34*P*
release from tissues in (*guinea-pig*), 95, 393
**Anaphylaxis**, Congo red inhibition of (*guinea-pig*), 75, 305
spleen activity during (*cat*), 68, 292
**Androgenic activity**, ovarian graft and (*rat*), 92, 34*P*
**Androgens**, oral administration and activity of (*fowl*), 94, 22*P*
ovariectomized animal affected by (*mouse*), 93, 416
teat growth in male affected by (*guinea-pig*), 92, 33*P*
testis and accessory organs growth affected by (*guinea-pig*), 94, 26
in immature male affected by (*guinea-pig*), 92, 15*P*
vaginal response after ovariectomy to (*mouse*), 92, 374
**Androsterone**, adrenal gland changes caused by (*rat*), 91, 368
esterification effect on physiological activity of (*capon*), 86, 49*P*
**Anemometer**, coronary circulation changes measured by (*H-L*), 68, 324
**'Angle'**, muscle twitch and cause of (*cat, frog*), 69, iii
**Angle of stimulation**, strength-duration curve of muscle with (*frog*), 70, 321
**Aniseed**, olfactory organ activity produced by (*fish*), 94, 452
**Anoestrus**, adrenal gland weight during (*rat*), 77, 166
anterior pituitary extract effect on (*ferret*), 69, xviii
temperature effect on (*mice*), 64, 388
**Anomalous trichromatism**, yellow sensation and (*man*), 91, 36

**Anoxaemia**, arterial pressure affected by (*mammal*), 61, 585
blood oxygen saturation in (*man*), 67, 62
carotid nerve impulses in (*cat*), 83, 462
carotid sinus action on apneustic centre with (*cat*), 95, 386
reflex on respiration and (*dog*), 71, v
and vagal influence in responses to (*dog*), 94, 4*P*
cerebral circulation affected by (*cat*), 100, 198
heart glycogen affected by (*rat*), 82, 475
heart volume affected by (*dog*), 61, 297
histamine production by heart affected by (*H-L*), 86, 444
lung reflexes affected by (*dog*), 74, 102
nerve refractory period affected by (*frog*), 68, 13
panting affected by (*dog*), 77, 29
skin acidity during (*cat*), 64, 399
subcutaneous and intraperitoneal oxygen in (*dog*), 64, xxxviii
vagus centre response to (*dog*), 61, 222
**Anoxia**, carotid sinus chronic denervation effect on respiratory response to (*rabbit*), 87, 71*P*; 88, 429
**Antagonistic drugs**, quantitative effects of, 89, 7*P*
**Anterior pituitary extract**, adrenocorticotrophic action of (*mammal*), 100, 1*P*
androgens action on testis affected by (*guinea-pig*), 94, 31
anoestrus affected by (*ferret*), 69, xviii
antisera formation to (*ox*), 90, 22*P*
anti-thyrotropic serum produced by injection of (*rabbit*), 95, 410
blood sugar response to insulin and adrenaline affected by (*rabbit*), 83, 165
deciduomata formation and (*rat*), 67, xxxiv
diabetes produced permanently by (*dog*), 92, 15*P*
diabetic action affected by diet (*dog*), 92, 14*P*
glycaemic response to insulin and adrenaline affected by (*rabbit*), 87, 13*P*
glycotropic factor action on liver glycogen (*rabbit*), 90, 20*P*
growth affected by diabetogenic fraction of (*mammal*), 100, 19*P*
insulin antagonism to (*rabbit*), 93, 63
insulin content of pancreas affected by (*dog*), 97, 200
after hypophysectomy affected by (*rat*), 100, 104
insulin peripheral action affected by (*cat*), 87, 15*P*
**Anterior pituitary extract**, ketonuria affected by (*rat*), 82, 385
produced by (*rat*), 69, xix
liver fat affected by (*rat*), 86, 190
in different species affected by (*mammal*), 92, 91
ovary affected by (*rabbit*), 67, xxxii
ovulation induced by (*rabbit*), 67, xxxiii; (*ferret*), 80, 78
in hypophysectomized animal induced by (*rabbit*), 69, xxiii; 71, 36
standardization curve for (*rabbit*), 81, 352
pancreotropic factor of (*rat*), 91, 352
testis size affected by (*rat*), 75, 37*P*
thyreotropic hormone action of (*mammal*), 82, 11
uterine movements in unloaded state affected by (*rabbit*), 99, 357
uterus affected by (*rabbit*), 75, 5*P*
vaginal reaction to prolonged treatment with (*rat*), 80, 107
**Anterior pituitary gland** antibody, specific dynamic action affected by (*rat*), 92, 273
corpus luteum formation affected by (*rabbit*), 70, 38
glycotropic factor and mode of action of (*rabbit*), 92, 183
gonadotropic activity, species variation (*mammal*), 83, 137
in vitamin E deficiency (*rat*), 86, 323
nerve fibres in (*rabbit*), 66, 321
oestrogen action on function of (*rat*), 94, 177
ovulation hormone content during reproductive cycle (*rabbit*), 83, 129
ovulation relation to (*rabbit*), 67, 383
thyrotropic and follicle-stimulating hormones relationship in (*mammal*), 88, 298
**Anterior pituitary ketogenic substance**, resistance developed to (*rat*), 84, 15
**Anterior pituitary ovulation hormone**, gonadectomy action on (*rabbit*), 83, 141
**Anti-cholinesterases**, central nervous system and action of (*cat*), 92, 6*P*; 96, 302
quaternary ammonium compounds (*cat*), 96, 320
hordenine compounds and (*cat*), 92, 422
knee jerk affected by (*cat*), 89, 397
**Anticoagulants**, action of, 90, 377
potency of azo-dyes as, 78, 25*P*
red blood cell permeability affected by (*rabbit*), 61, 114

**Anti-diuretic hormone**, anaesthetics effect on action of (*rabbit*), 98, 405
augmentation by various substances of (*rat*), 96, 293
blood carriage and excretion of (*rabbit*), 89, 81
*p*H effect on stability of (*rat*), 96, 340
pressor activity parallelism with (*dog*), 100, 233
tissue inactivation of (*mammal*), 85, 502
urinary excretion during dehydration (*rat*), 90, 118
vertebrate series and distribution of, 99, 246
**Anti-diuretic 'principle'**, water-balance principle comparison with (*vertebrate*), 100, 125
**Anti-diuretic substance**, liver and (*ox*), 78, 18*P*
**Antidromic impulse**, skeletal muscle sensory nerve endings affected by (*cat*), 78, 46
sympathetic ganglion affected by (*cat*), 81, 238; 88, 1
**Antidromic sensory impulses**, nature of (*frog*), 72, 378
**Antidromic sensory nerve fibres**, central course of (*cat*), 85, 79
histological evidence of (*cat*), 85, 104
**Antidromic vasodilatation**, curarine after total sympathectomy effect on (*cat*), 97, 283
histamine and (*cat*), 62, xix
**Antidromic volley**, motor neurone affected by (*frog, cat*), 92, 305
sympathetic ganglion affected by, 85, 32*P*
**Antigen**, Congo red action on (*guinea-pig*), 75, 307
**Anti-gonadotropic serum**, non-specificity of (*rabbit*), 88, 305
ovulation inhibited by (*rabbit*), 87, 29*P*
**Anti-growth principle**, parathyroid gland and (*mammal*), 76, 303
**Anti-ketogenic substance**, phlorhizin diabetes affected by (*rat*), 84, 15
**Antipituitary serum**, specific dynamic action affected by (*rat*), 92, 273
**Anti-sera**, class specificity to hormone (*fowl, mammal*), 90, 100
**Antithrombase**, antitrypsin not identical with, 92, 5*P*
**Anti-thyreotropic hormone**, production of (*rat*), 82, 18
**Antithyrotropic serum**, test subject for (*chick*), 94, 363
thyroid gland of thyrotropic hormone-treated animals affected by (*mammal*), 86, 109
**Antitrypsin**, antithrombase not identical with, 92, 5*P*
**Aorta**, histamine release in anaphylactic shock (*guinea-pig*), 95, 394
**Aorta occlusion**, blood pressure changes following (*dog*), 71, 282
cardiac output following (*dog*), 71, 282; 72, 191
model showing effect on systemic flow of (*dog*), 85, 54
systemic flow affected by (*dog*), 78, 189
and central nervous system influence on (*dog*), 82, 377
increase and explanation of (*dog*), 85, 47
**Aortic distension**, heart rate affected by (*dog*), 62, 337
**Aortic pressure**, cardiovascular reflexes and (*dog*), 61, 268
coronary circulation with changes in (*dog*), 65, 364
heart rate affected by (*dog*), 61, 225
**Apneusis**, carbon dioxide excess and production of (*cat*), 74, 159
expiratory muscle function in, 71, vii
hydrocyanic acid action in producing (*mammal*), 69, 128
production and significance of (*cat*), 93, 10
**Apneustic centre**, carbon dioxide action on (*cat*), 93, 263
carotid sinus chemo-receptors action on (*cat*), 95, 365
pneumotaxic centre connection with (*cat*), 96, 24*P*
**Apnoea**, alveolar air aqueous vapour pressure affected by (*man*), 77, 41
carotid sinus action and (*dog*), 69, 256
**Apparatus**, action current demonstration by sound, 66, xiii
aesthiometer, differential, 77, 16*P*
alcohol check for closed respiration circuit, 78, 16*P*
alveolar air sampling (*man*), 64, 108
in exercise (*man*), 65, 391
amplifier, direct-coupled, 72, 148
modified balanced-input, 85, 40*P*
for multiple recording, 81, 28*P*
simple direct-coupled, 91, 31
simple universal, 93, 25*P*
arterial clamp for small animals, 95, 10*P*
aseptic heart perfusion (*rabbit*), 63, 244
auricle oxygen consumption and work (*Amphibia*), 68, 406
automatic contact breaker, 68, x
ballistic lever, 74, 232
blood carbon dioxide uptake measurement, 80, 149
blood equilibration, 80, 388

Apparatus, blood gases pressure measurement, 61, 232
blood oxygenator, 66, 443; (*dog*), 79, 202
blood pressure, continuous recording (*man*), 95, 239
blood velocity recorder, 61, xxi
body temperature, automatic regulation, 68, xii
bone head, one-screw fixing, 77, 15*P*
capillary electrometer amplifier, nerve impulse measurement and (*mammal*), 61, 52
capillary perfusion in frog, 63, 250
carbon dioxide uptake by fluids shortly after mixing, 70, 373
cardiometer for heart-lung preparation (*dog*), 63, 300
cathode-ray oscillograms, photographic recording improvement, 84, 25*P*
colorimeter, photocell, 93, 281
commutator and condenser for repetitive stimulation, 82, 423
contact-breaker device for nerve stimulation, 63, 132
for variable frequencies, 72, 17*P*
decerebration, clamp, 69, xx
diaphragm movements registration, 94, 227
double-perfusion pump, 64, 356
drop recorder, 65, vi
for A.C. mains, 84, 57*P*
thermionic, 71, xxii
universal mains, 87, 20*P*
electrodialysis for micro-determination of base, 81, 162
film development for long lengths, 100, 13*P*
fixed-focus projector for spectra measurement, 68, xvi
flow recorder and pump control combined, 69, v
fluid electrode, 80, 14*P*
frequency recorder with neon lamp circuit, 71, i
frog's heart isometric contraction, 64, 124
frog ventricle perfusion, 66, 186
Gaddum flow recorder, 67, xvi
galvanometer, rapid system, 92, 43*P*
recording pointer with photoelectric coupling and thermionic amplification, 95, 62*P*
gas analysis automatic shaker, 69, xxix
gas circulation in small enclosed circuit, 63, 94
gastric contents sampling without carbon dioxide loss (*man*), 65, 67
glass electrode for use at body temperature, 95, 15*P*
Apparatus, Haldane gas analysis modification, 68, xiv; 91, 8*P*
safety device, 84, 23*P*
simplified, 85, 38*P*
heart chamber (*frog*), 67, xxv
heart perfusion (*mammal*), 72, 21*P*
with respiratory exchange measurement (*frog*), 72, 462
impedance angle measurement (*man*), 83, 1*P*
induction coil 'make' shock elimination, 72, 14*P*
isothermal chamber, A.C. operated, 90, 35*P*
kidney pressure-flow relations, hydrodynamic model of, 72, 369
Krogh's bicycle ergometer, modification of, 72, 405
micro-gas analysis, modification, 84, 219
kymograph extension for doubling recording surface, 69, xxxiv
improvised, 71, ix
liver perfusion (*dog*), 65, 49; 74, 347
for metabolic studies (*rat*), 100, 436
living membrane for transudation (*mammal*), 71, 412
make induction shock stimulation, 64, viii
mammalian myograph, 66, iii
Matthews oscillograph, 65, 225
metabolism, closed circuit for small animals, 89, 421
microtitration, improvement, 84, 27*P*
mirror myograph (*cat*), 70, 102
motor car adapted as blood pump, 77, 36*P*
muscle extensometer, 69, 484
myograph, single sensory nerve ending preparation (*cat*), 78, 3
negative pressure ventilation (*dog*), 65, 34; 69, xxxvii
ocular manometer, 71, 2
oesophageal contractions measured by (*man*), 63, 218
oil-water emulsion in fine state, 78, 467
operating board for small mammals, 99, 157
with thermoregulator, 91, 10*P*
optic nerve discharge measurement (*eel*), 63, 380
optical recording of small changes in pressure or volume, 100, 12*P*
oscillograph, electrical, 65, 225
mains-driven amplifier in, 83, 440
moving coil, 87, 3*P*
osmometer for serum protein, 61, 321

**Apparatus**, oxygen consumption of small animals, 66, 299
of stimulated muscle (*frog*), 98, 207
differential volumetric for time course in stimulated muscle (*frog*), 96, 17*P*
oxygenator, closed circuit type, 95, 49*P*
fine spray type, 74, 2*P*
magnetic type, 82, 26
perfusion of limbs (*mammal*), 61, 187
perfusion pump, 77, 14*P*
small volume, 99, 102
pH changes in muscle during contraction (*frog*), 90, 47*P*
phase angle measurement (*man*), 93, 352
photoelectric colorimeter, 79, 152
haemoglobinometer, 69, xxii; 71, x
photographic measurement of $HbO_2$ and HbCO mixtures, 64, 405
photometer, simple, for dark adaptation, 91, 20*P*
plethysmograph for blood-pressure measurement in tail of rat, 93, 301
plural cannula, 75, 1*P*
pressure control automatic device, 78, 13*P*
pump-lung-kidney circuit, 71, 201
reaction velocity, vacuum operated, 81, 12*P*
reflex myogram in man, 68, 132
renal blood flow, urine flow and conductivity recording on smoked drum, 87, 65*P*
respiration, closed-circuit type (*man*), 67, 423
respiration mask for fowl, 78, 2*P*
respiration mouthpiece (*man*), 78, 5*P*
respiration pump, 61, xiv; 68, 190
respiration recorder (*rabbit*), 70, 218
graphic, for small animals, 80, 28*P*
quantitative (*mammal*), 99, 257.
respiratory exchanges of heart lung preparation, 65, 36
respiratory rhythm with lung changes (*mammal*), 66, vi
rotation viscometer, 68, xiii
Sherrington's stethograph modification, 68, xi
siren, phase change, 86, 66*P*
skin capillaries, photography of (*man*), 65, iv
skin electrical phenomena recording, 87, 24*P*
potentials recording, 85, 28*P*
slide rule for respiratory quotient calculation, 64, ix
small intestine contractions with electrolytes (*rabbit*), 65, vii
specific gravity, micro-method, 98, 3*P*
**Apparatus**, speedometer, general purpose 96, 31*P*
stimulation electromagnetic induction, 93, 28*P*
stimulation unit, A.C. mains, 84, 58*P*
faradic mains driven, 96, 57*P*
stomach and pyloric movements, 81, 35*P*
stromuhr, mechanical, 67, 402
tension-length curves of muscle, continuous recording, 61, 340
thermo-regulator, radio electric relay, 96, 59*P*
time-marker, A.C. mains, 84, 64*P*
time-recorder, electrical with leaking condenser, 86, 59*P*
torsion micro-balance, 93, 368
tracing films, 64, xii
ultra-filter, 62, xxix
ultra-filtration *in vivo* (*mammal*), 71, 111
urine flow recorder, 95, 60*P*
ventricle oxygen consumption measurement (*tortoise*), 72, 250
vertebral clamp, 69, xi
viscometer, differential type of, 91, 19*P*
visual purple bleaching reactions, 94, 401
vivi-perfusion of blood (*dog*), 64, 155
volume recorder, 66, xvii
simple type, 95, 14*P*
water manometer for class use, 74, 16*P*
Winkler method for dissolved oxygen, modified, 82, 5*P*
**Appetite**, body weight control by (*rabbit*), 90, 385
drugs action on (*rabbit*), 90, 391
**Apraxia**, higher motor activity disturbance in (*man*), 85, 9*P*
**Aqueous humour**, blood comparison with (*rabbit*), 62, 321
blood potassium, sodium and chloride diffusion into and out of (*P-AL-H*), 98, 141
chloride concentration in serum and (*mammal*), 94, 118
composition, intra-ocular pressure and (*cat*), 64, 83
non-electrolytes concentration after injection (*cat*), 95, 139
osmotic pressure of (*rabbit*), 62, 315; (*mammal*), 92, 355
of serum and (*cat*), 89, 61
paracentesis and changes in (*rabbit*), 68, 162
refractive index of (*rabbit*), 62, 321
sodium distribution between plasma and (*cat*), 96, 194
temperature changes in (*dog*), 71, 5
**Arecoline**, adrenaline discharge effected by (*cat*), 81, 302

**Arecoline**, blood pressure of decapitate cat with, 63, 49
heart affected by (*rabbit*), 70, 458
intestine affected by (*frog*, *Xenopus*), 71, IV
sympathetic ganglion affected by (*cat*), 83, 123
**Arginine**, urea formation in perfused liver from (*rat*), 100, 450
**Arginine phosphate**, estimation of, 82, 85
muscle containing (*fly*), 80, 223
plain muscle activity and changes in (*Mytilus*), 82, 81
**Arm posture**, head movement and labyrinthine stimulation effect on (*man*), 65, X
**Arsenic**, heart in anaerobiosis affected by (*frog*), 80, 471
**Arterial blood**, carbon dioxide, ammonium chloride acidosis and (*man*), 65, 414
pH changes with carbon dioxide hyperpnoea (*man*), 74, 471
**Arterial carbon dioxide pressure**, alveolar air relation to (*man*), 68, 281
**Arterial clamp**, renal artery in small animals and use of, 95, 10*P*
**Arterial oxygen pressure**, alveolar air relation to (*man*), 68, 285
**Arterial pressure**. *See* **Blood pressure**
**Arterioles**, acetylcholine and sensitivity of (*cat*), 64, XII
media heterogeneous structure in, 90, 63*P*
**Arterio-venous** carbon dioxide difference, errors in measurement of, 67, 50
oxygen difference, anoxaemia effect on cerebral (*cat*), 100, 200
temperature difference, vasoconstriction in muscle effect on (*dog*), 99, 195
**Artery**, adrenaline and ergotoxin effect on (*mammal*), 61, XVIII
histamine action on (*mammal*), 61, 283
isolated preparation of, 81, 27*P*
drugs action on (*mammal*), 64, 65
pulse wave velocity and extensibility of (*man*), 69, 386
sympathetic nerve supply to (*cat*), 74, 37
temperature effect on (*mammal*), 61, XVIII
**Artery wall**, blood pressure affected by resistance in (*man*), 81, 270
**Artificial heating**, skin temperatures with (*man*), 66, VIII
**Artificial respiration**, method of, 61, XIV
**Ascorbic acid**, adrenal cortex and pituitary gland relation (*rabbit*), 83, 172
inanition effect on adrenal gland adrenaline and (*guinea-pig*), 83, 482
**Asphyxia**, acetylcholine in cerebro-spinal fluid with eserine and (*dog*), 86, 281
**Asphyxia**, cardio-inhibitory reflex affected by, 71, 423
carotid nerve impulses in (*cat*), 83, 462
foetal blood pressure response to (*cat*), 74, 395
foetal movement with brain section and (*sheep*), 91, 338
foetal respiratory movement in relation to (*sheep*), 97, 338
heart arrest with (*frog*), 82, 285
heart rate affected by (*cat*), 67, XXI
with age by (*rabbit*), 93, 90
histamine hypotension affected by (*dog*), 78, 57
knee jerk affected by (*cat*), 88, 470
lung reflexes affected by (*dog*), 74, 102
phrenic nerve action currents in (*rabbit*), 66, 88
retinal action potentials affected by (*cat*), 77, 216
skeletal muscle survival time and (*cat*), 61, VI
vagal reflexes development with age (*rabbit*), 95, 187
ventricle electrogram and metabolism in (*frog*), 84, 438
**Assay**, adrenal cortical hormone (*rat*), 87, 222; (*drake*), 89, 64
comb-growth hormone and (*capon*), 73, 136
oestrin (*mouse*), 67, 389; (*rat*), 68, 348
prolactin (*pigeon*), 88, 6*P*
thyroid extract and thyroxine (*tadpole*), 64, 246
**Asthma**, breathing exercises effect on pulmonary capacity in (*man*), 95, 25*P*
histamine production by bacteria in (*man*), 70, XXXI
**Athlete**, leg volume with posture in (*man*), 72, 128
pulse rate of (*man*), 76, 39
**Athrophagocytosis**, open nephron and (*Xenopus*), 90, 77*P*
closed nephron and (*toad*), 90, 79*P*
**Atmospheric conditions**, infra-red rays part in, 75, 8*P*
**Atropine**, acetylcholine action on denervated muscle with (*mammal*), 70, 136
acetylcholine action on knee jerk affected by (*cat*), 89, 184
antagonism on heart to (*frog*), 61, 549
production by heart with vagus stimulation affected by (*frog*), 90, 81*P*
stimulation of submaxillary gland slice respiration affected by (*cat*), 92, 454

**Atropine**, alimentary hyperglycaemia and glucose absorption affected by (*mammal*), 80, 49
bird reactions to (*duck*), 93, 56*P*
glucose tolerance affected by (*rabbit*), 61, 581
heart conduction rate affected by (*Scyllium*), 69, 42
heart rate affected by temperature with (*frog*), 71, 153; (*Xenopus*), 71, 165
after sympathectomy affected by (*dog*), 95, 439
histamine assay with use of (*mammal*), 89, 261
hyperglycaemia of different types affected by (*rabbit*), 79, 239
intra-ocular pressure affected by (*dog*), 71, 22
knee jerk affected by (*cat*), 89, 173
liver glycogen after decerebration affected by (*rabbit*), 80, 298
neuro-muscular contracture and (*frog*), 76, 78
phlorhizin glycosuria and (*rat*), 64, 351
spinal cord activity with drugs affected by (*dog*), 100, 355
staircase phenomenon affected by (*frog*), 75, 7
stomach emptying rate affected by splanchnotomy and (*dog*), 84, 240
muscle response to vagus stimulation with (*cat*), 68, 128
sympathetic ganglion affected by (*cat*), 83, 123
vagal inhibitory action on heart affected by (*cat*), 82, 224
**Auditory nerve**, action potentials, sound effect on (*reptile*), 92, 9*P*
labyrinth stimulation and electrical responses in (*frog*), 86, 124
section, cochlea affected by (*cat*), 83, 244
**Auditory sensation**, sound and electrical stimulation comparison on (*man*), 89, 122
**Auditory stimulus**, cercal nerve action potentials with (*cockroach*), 87, 4*P*
**Auricle**, acetylcholine action with nerve development in (*Fundulus*), 84, 27
calcium action on contraction and conduction in (*tortoise*), 61, 178
cocaine action with adrenaline and tyramine on (*cat*), 71, 177
conduction, alcohols action on (*tortoise*), 61, 294
ions action on (*tortoise*), 61, 172
rate, adenosine action on (*dog*), 68, 225
temperature effect on (*tortoise*), 61, 176
**Auricle**, electrical response with filling of (*frog*), 69, 319
enzyme poisons action on (*frog*), 89, 316
oxygen consumption of (*Amphibia*), 68, 406
with ionic changes on (*frog*), 68, 433
pH effect on contraction of (*tortoise*), 61, 177
phosphate metabolism in asphyxiated ventricle and (*dog*), 91, 317
potassium action on contraction and conduction in (*tortoise*), 61, 178
pressor reflex from right (*cat*), 81, 5*P*
refractory period, adenosine action on (*dog*), 68, 224
ventricular amplitude controlled by (*frog*), 78, 302
work done by (*Amphibia*), 68, 424
**Auricular fibrillation**, adenosine action on (*dog*), 68, 227
coronary flow affected by (*H-L*), 67, 312
**Auricular pressure**, adrenaline action on (*mammal*), 67, 80
histamine action in different species on (*mammal*), 70, 1
nicotine action on (*mammal*), 67, 80
**Auriculo-ventricular bundle**, vago-mimetic drugs action after section of (*rabbit*), 70, 458
vagus stimulation effect on conduction in (*dog*), 80, 329
**Auriculo-ventricular conduction**, nerve stimulation effect on (*Scyllium*), 69, 42
**Autonomic drugs**, invertebrate reaction to, 86, 19*P*
**Autonomic nerve**, physiological definition of, 80, 10*P*
stimulation, caffeine action on (*mammal*), 90, 55*P*
gastro-intestinal reactions to (*skate*), 83, 56
**Autonomic nervous system**, alimentary hyperglycaemia and glucose absorption affected by (*mammal*), 80, 48
nomenclature of, 71, 362
**Auxin**, bacterial growth and, 78, 6*P*
**Auxobaric auricle**, oxygen consumption of (*frog*), 68, 422
**Avertin**, brain metabolism affected by (*rat*), 92, 324
**Avian muscle**, acetylcholine and eserine actions on (*fowl*), 94, 101
**Axoloti**, thyroid action on metabolic rate, 64, 267
**Axon reflex**, venules affected by (*man*), 64, xxxii, xxxvi

**Acids**, muscle pH changes following activity affected by (*frog*), 98, 475
recovery oxygen consumption of muscle affected by (*frog*), 98, 221
**Aso dyes**, relationship to blood clotting properties of (*rabbit*), 80, 82
salt effect on anti-coagulant property of (*rabbit*), 82, 24*P*
**Azygos vein**, adrenaline and acetylcholine action on (*dog*), 75, 471

**Baboon**, oestrous cycle duration and signs and pregnancy duration, 69, xxxi
**Bacteria**, auxin necessary for growth of, 78, 6*P*
**Bainbridge reflex**, investigation of (*dog*), 61, 227
**Ballistic lever**, description of, 74, 232
**Barbitone**, cardiac irregularities controlled by (*cat*), 81, 386
**Barbiturates**, blood sugar and liver glycogen affected by (*cat*), 76, 398
skeletal muscle response to electrical stimulation affected by (*frog*), 96, 51*P*
vaso-motor tone regulation affected by (*dog*), 90, 59*P*
**Barium**, eserine sensitization of muscle to (*leech*), 80, 21*P*
**Basal ganglia**, acetylcholine content of (*cat*), 80, 417
muscular rigidities following damage to (*cat*), 96, 39*P*
**Basal metabolic rate**, circulation time from arm to tongue relation to (*man*), 85, 24*P*
protein intake relation to (*man*), 65, 246
tropical climate effect on (*man*), 99, 496
**Base**, electrodialysis for micro-determination of, 81, 162
**Bat**, body temperature and respiratory quotient in winter sleep and exercise, 82, 459
**Bee venom**, adrenal medulla affected by (*cat*), 99, 104
lung histamine liberation by (*guinea-pig*), 91, 2*P*
**Bence-Jones protein**, renal excretion of (*cat*), 77, 393
**Bent nerve**, excitation of (*frog*), 65, 173
**Benzedrine**, pharmacological actions of derivatives of (*mammal*), 95, 485
**Benzene**, fat absorption affected by (*rabbit*), 93, 4
**Berger rhythm**, brain and (*monkey*), 87, 83*P*
**Betaine**, liver fat affected by (*rat*), 75, 410
by cholesterol with (*rat*), 78, 416
**Bicarbonate**, haemoglobin osmotic pressure affected by, 73, 318
**Biceps brachii**, extensor reflexes and (*cat*), 65, 318
**Bicycle ergometer**, efficiency with duration of exercise on (*man*), 80, 394
modification of Krogh's, 72, 405
respiratory and circulatory changes with use of (*man*), 66, 324
**Bicycle pedalling**, efficiency and optimum speed of (*man*), 72, 433
efficiency with speed of, 67, 242
and formulae in use for, 82, 207
protein diet effect on performance and efficiency of (*man*), 82, 189
protein metabolism in prolonged (*man*), 82, 184
training effect on efficiency of (*man*), 82, 200
**Bile**, carbon dioxide content of, 61, xvii
cholagogue action of (*cat*), 64, 332
fat absorption and (*cat*), 64, v
oxygen content of, 61, xvii
pancreatic secretion stimulated by (*cat*), 61, 421
**Bile acids**, metabolism of (*dog*), 64, vii
**Bile duct occlusion**, liver glycogen recovery affected by (*cat*), 76, 425
**Bile salts**, urine surface tension affected by (*man*), 85, 138
**Bile secretion**, Golgi apparatus in liver cells and (*mammal*), 62, 74
**Bilirubinoid pigments**, faeces and isolation of (*man*), 100, 4*P*
**Binocular after-image**, uniocular compared with (*man*), 69, 428
**Binocular fusion** and rivalry, form and colour dissociation in (*man*), 84, 381
**Binocular summation**, dark adaptation and (*man*), 91, 427
**Birds**, adrenalectomy effect on plumage, 86, 35*P*
blood cocarboxylase, 95, 57*P*
choline esterase and muscle development, 95, 29
light adaptation and fusion frequency, 85, 423
retinal response, 85, 421
**Birefringence**, giant axon activity effect on (*squid*), 98, 44
**Birth**, arterial blood oxygen saturation at (*sheep*), 90, 28*P*
blood oxygen capacity changes following (*cow*), 92, 253
carotid blood oxygen concentration at (*sheep*), 94, 571
placental blood to foetus at (*sheep*), 90, 27*P*

**Bisulphate**, intravital staining method study of renal elimination of (*frog*, *rat*), 97, 437
**Black after-image**, cause of (*man*), 73, 247
**Bladder**, abdominal muscles affected by reflex from (*cat*), 90, 478
afferent impulses from (*frog*), 82, 22*P*
anaesthetics absorbed from (*cat*), 93, 53*P*
'automatic', nervous impulses to and from (*cat*), 86, 409
carbon dioxide tension in (*mammal*), 65, xix
nerve impulses from and to (*cat*), 86, 396
oxygen tension in (*mammal*), 65, xix
sensory nerve discharges from (*dog*), 89, 1
sympathetic motor nerve supply to (*man*), 86, 20*P*
**Blistering**, skin resistance and (*man*), 62, 287
**Blood**, acetylcholine. *See* **Blood acetylcholine**
acetylene solubility in, 99, 49
adenosine content of (*dog*), 85, 12
adrenaline inactivation in (*cat*), 91, 238
inactivation *in vitro* by, 87, 8*P*
oxidation affected by (*rabbit*), 72, 96
alcohol concentration, metabolic rate of alcohol affected by (*cat*), 98, 239
alcohol distribution between tissues and (*cat*), 98, 231
amino acids, feeding and fasting effects on (*cat*), 89, 273
ammonia, urease toxic action and concentration of (*cat*), 96, 81
anions, exercise effect on (*man*), 69, 290
anti-diuretic augmenting substances in (*horse*), 96, 298
anti-diuretic hormone adsorption by (*rabbit*), 89, 81
aqueous humour potassium sodium and chloride diffusion into and out of (*P-AL-H*), 98, 141
base, protein metabolism affected by concentration of (*man*), 99, 370
bicarbonate, gastric acidity relation to (*man*), 73, 311
high altitude effect on distribution of (*man*), 71, 51
buffering power of (*Maia*), 62, 65
carbamino compound in, 80, 155
direct chemical estimation of, 83, 68
physiological importance of, 83, 92
carbamino equilibria in, 85, 17*P*
carbon dioxide. *See* **Blood carbon dioxide**
carbon monoxide, acclimatization effect on (*man*), 87, 45
photo-electric determination of, 98, 23*P*
**Blood**, carbonic anhydrase content of (*mammal*), 80, 137
carboxyhaemoglobin measurement in, 64, 405
chloride, exercise and changes in (*man*), 63, x
gastric secretion affected by reduction in (*man*), 96, 23
high altitude effect on distribution of (*man*), 71, 50
water drinking effect on concentration of (*man*), 78, 134
cholesterol, adrenalectomy affecting (*rabbit*), 75, 34*P*
anaesthetics action on (*rabbit*), 77, 97
coagulation. *See* **Blood coagulation**
cocarboxylase content of (*bird*, *mammal*), 95, 57*P*
colloid osmotic pressure, intraocular pressure and (*cat*), 64, 81
composition, ether anaesthesia on (*rabbit*), 64, xi
exercise in different subjects affecting, 69, 273
histamine action on (*dog*), 78, 59
venous compression effect on (*cow*), 82, 487
concentration. *See* **Blood concentration**
corpuscles. *See* **Blood corpuscles, red, white**
count. *See* **Blood count**
creatinine distribution following intravenous injection in (*rabbit*), 79, 372
rate of disappearance following intravenous injection (*rabbit*), 79, 409
renal extraction ratio relationship to (*rabbit*), 79, 382
defibrination, histamine distribution affected by (*mammal*), 96, 131
dilution. *See* **Blood dilution**
distribution, aortic occlusion and (*dog*), 72, 195
cardiac output affected by (*dog*), 71, 280
liver 'reservoir' action in (*mammal*), 74, 44
dyestuffs removed from (*rabbit*), 72, 216
electrolytes, exercise in different subjects affecting, 69, 277
enzymes, carbonic anhydrase differentiation from, 80, 125
equilibration, apparatuses for, 80, 388
fat, chylomicrograph study of (*man*), 95, 23*P*
particle count parallelism with, 95, 75
serum particle count relation to (*man*), 90, 27
ultramicroscopic particles and cholesterol comparison with (*man*), 90, 33*P*

Blood, flow. *See* Blood flow
formation, X-ray effect on (*mammal*), 68, v
gas -es. *See* Blood gas -es
glycolysis, factors affecting (*mammal*), 84, 173
in lungs (*P-L*), 82, 46
haemoglobin. *See* Haemoglobin
heat production by (*mammal*), 71, xviii
histamine. *See* Blood histamine
injection, tissue oxygen tension and (*rabbit*), 65, 256
iron, salivary secretion effect on (*cow*), 86, 39
ketone, anterior pituitary extract effect on (*rat*), 86, 197
lactate. *See* Blood lactate
lipoid, pregnancy and pseudo-pregnancy effect on (*rabbit*), 86, 250
liver from oxygen lack animals, effect of feeding on (*rat*), 84, 454
lymph colloid osmotic pressure relation to (*frog*), 63, 306
nitrogen, pressure measurement of, 61, 232
osmotic pressure, hypertonic saline effect on (*cat*), 73, 186
salt and fresh water environment effect on (*Fundulus*), 85, 6*P*
by thermoelectric method (*man*), 70, 417
water diuresis in relation to changes in (*man*), 82, 62
over-ventilation and carbon dioxide removal from (*cat*), 69, 116
oxalate and defibrination effect on ease of haemolysis of, 83, 37
oxygen. *See* Blood oxygen
oxygen poisoning effect on (*dog*), 72, 39
oxygenation, apparatus for, 66, 443
carbamino compounds affected by, 80, 158; (*man*), 88, 50
haemoglobin carbamino compound affected by, 83, 91
oxygenator. *See* Oxygenator
oxyhaemoglobin crystals prepared from (*ox*), 64, xxv
oxytocic property of (*cow*), 81, 63
oxytocin during pregnancy in (*mammal*), 84, 351
particles, composition and properties of, 95, 68
pH. *See* Blood pH
phosphate. *See* Blood phosphate
pigments, alkali denaturation of, 100, 3*P*
kinetics of, 79, 158
pituitrin inactivation in (*mammal*), 85, 505
potassium, adrenaline action on (*cat*), 80, 7*P*
Blood, potassium, dietary base intake effect on (*man*), 99, 376
histamine assay and, 100, 152
pressure. *See* Blood pressure
protein, bicarbonate relation to base bound by (*man*), 69, 291
pulmonary oedema affected by (*cat H-L*), 75, 295
regeneration, carotid sinus effect on (*rabbit*), 93, 75
liver action on (*dog*), 62, 192
liver extracts from different species effective in (*mammal*), 100, 94
sedimentation, stratified zones in (*mammal*), 95, 105
sedimentation rate. *See* Sedimentation rate
spleen reservoir of, 61, ix
stratification and factors affecting, 99, 42
stream-lining, occurrence of (*mammal*), 87, 93
sugar. *See* Blood sugar
transfusion, urea excretion affected by (*dog*), 75, 190
ultramicroscopic particles and fat content of (*man*), 90, 18
composition of (*man*), 90, 31*P*
urea, blood transfusion effect on (*dog*), 75, 190
renal extraction ratio relationship to (*rabbit*), 79, 385
salt deficiency effect on (*man*), 91, 222
vapour pressure of (*man*), 70, 417
vaso-dilator action of (*dog*), 64, 155
'vaso-tonins' development in (*P-AL-K*), 77, 34*P*
velocity, recorder of, 61, xxi
vessels. *See* Blood vessels
viscosity, corpuscle content effect on (*P-Limb*), 78, 353
hind limb perfusion for measurement of (*dog*), 78, 339
volume. *See* Blood volume
Blood, acetylcholine absence from (*ox*), 79, 249
alleged occurrence in (*ox*), 82, 118
content of (*mammal*), 82, 38
destruction by (*horse*), 70, 338
formation in sympathetic ganglion relation to (*cat*), 88, 274
in (*horse*), 79, 272
Blood carbon dioxide, barium precipitation and carbamino estimation, 83, 89
carotid nerve impulses with changes in (*cat*), 82, 23*P*; 85, 309
content, rebreathing method of determining (*man*), 67, 315

**Blood carbon dioxide**, cyanide effect on output and intake of, 80, 144
dissociation curve, temperature effect on, 67, 289
estimation of, 86, 153
eviscerate preparation and lactic acid relation to (*cat*), 71, 395
evisceration effect on (*cat*), 66, 408
exercise effect on (*man*), 66, 152
mild, effect on (*man*), 69, 221
foetal and maternal comparison of (*goat*), 80, 492
forms of, 83, 98
gastric secretion affected by (*dog*), 75, 345
mixture, osmotic pressure of (*man*), 73, 311
panting effect on (*dog*), 77, 23
pressure measurement of, 61, 232
respiratory quotient in eviscerate preparation relation to (*cat*), 79, 512
state of, 80, 143
sugar distribution in cells and plasma affected by, 84, 29*P*
tension, apneustic centre affected by (*cat*), 93, 263
decerebration effect on (*cat*), 94, 527
errors in measurement of (*man*), 67, 49
vascular responses to changes in (*man*), 88, 115
transport by carbamino compounds in (*man*), 88, 40
**Blood coagulation**, adenosine content affected by (*dog*), 85, 12
adrenaline action on time of (*rabbit*), 90, 65*P*
alkali reserve changes effect on (*cat*), 83, 50
anaphylactic shock and heparin action on (*dog*), 99, 454
anticoagulants action on, 90, 377
azo-dyes action on enzymes concerned in, 82, 21*P*
relationship and (*rabbit*), 80, 82
citric acid and decomposition products effect on (*cat*), 85, 173
injections effect on (*cat*), 85, 168
cyclic variations in normal (*man*), 82, 8*P*
exercise effect on time of (*dog*), 82, 113
fat-soluble substance concerned in, 99, 7*P*
fibrinogen and thrombin estimation in (*man*), 80, 422
foreign particles in circulation and (*rabbit*), 62, 129
histamine distribution affected by (*mammal*), 90, 356; 96, 133
mechanism of, 62, IX
perspex surface delaying action on, 100, 5*P*
**Blood coagulation**, thrombin quantitative assay in, 100, 279
time, Chicago blue effect on (*rabbit*), 74, 65
trypsin injection effect on (*cat*), 98, 8*P*
**Blood concentration**, intra-ocular pressure affected by (*P-AL-Eye*), 71, 269
menstrual cycle effect on (*monkey*), 89, 51*P*
spleen contraction and (*cat*), 61, 457
stasis effect on (*cow*), 82, 487
water diuresis and (*rabbit*), 76, 9
water intake effect with high external temperature on (*man*), 86, 209
**Blood corpuscles, red**, adenosine distribution between plasma and (*dog*), 85, 13
adrenaline inactivation and (*cat*), 91, 244
ammonium chloride acidosis on number of (*man*), 65, 419
area, haemoglobin relation to (*mammal*), 66, 379
blood viscosity affected by concentration of (*P-limb*), 78, 353
carbonic anhydrase and factors limiting activity in, 93, 117
limited action in, 93, 8*P*
concentration, exercise effect on, 69, 286
growth after birth and changes in (*sheep*), 94, 543
pregnancy effect on (*sheep*), 95, 160
splenic blood (*cat*), 94, 486
count. *See* **Blood count**
diameter measurement of (*mammal*), 66, 37
electrophoretic speed and sedimentation rate of (*mammal*), 95, 96
affected by maturity of, 99, 35
fragility affected by washing of (*rabbit*), 74, 263
factors concerned in, 83, 42
relation to volume of (*mammal*), 83, 352
reticulocytes and, 99, 39
gas diffusion rate into and out of (*ox*), 73, 349
haemolysis and tonicity of solutions with (*rabbit*), 73, 279
histamine diffusion in and out of (*dog*), 96, 135
histamine-like substance present in, 95, 479
life span of (*man*), 98, 12*P*
light sensitivity of (*vertebrate*), 99, 510
liver 'storage' of (*mammal*), 74, 44
maturity effect on surface and fragility of, 99, 30
measurements of (*mammal*), 64, 215
oedema development with perfusion of (*frog*), 98, 117

**Blood corpuscles, red,** oxygen pressure affecting (*rabbit*), 62, 217
oxygen uptake rate of (*sheep*), 62, 232
perfusion fluid with haemolysed, 86, 42*P*
permeability, factors affecting (*rabbit*), 61, 113
to potassium, 92, 25*P*
pH of (*man*), 63, 349; 64, xxi
affecting volume of, 62, xvi
phosphate diffusion into, 77, 22*P*
with pH of (*man*), 63, i
phosphorus index, comparative study of (*mammals*), 65, 374
porphyrin-low diet effect on regeneration of (*mammal*), 95, 508
posture effect on (*man*), 72, 111
resistance to haemolysis of, 61, vii
with splenectomy (*cat*), 61, 446
size relation to fragility of (*mammal*), 83, 352
sodium and potassium diffusion into (*cat*), 95, 38*P*
solvent water in (*mammal*), 86, 147
spleen action on surface properties of (*dog*), 92, 39*P*
spleen pulp and concentration of (*dog*), 64, 23
splenic artery and vein blood comparison (*cat*), 94, 411
splenic prolongation of life of (*mammal*), 95, 92
surface and fragility differences in mature and immature, 99, 30
tissue oxygen tension and (*rabbit*), 65, 256
ultrasonic radiation effect on, 67, 357
volume, conductivity measurement of (*rabbit*), 85, 439
diffractometer measurement of, 73, 267
hypotonic plasma effect on, 77, 181
isotonic solutions effect on (*rabbit*), 70, 169
measurement by various methods of (*mammal*), 70, 18
oxalate and defibrination effect on, 83, 40
viscosity method of measurement of, 74, 15*P*
water ingestion effect on dilution of (*rabbit*), 75, 88
**Blood corpuscles, white,** high altitude effect on (*man*), 78, 335
histamine of blood in (*mammal*), 90, 358
distribution in (*mammal*), 90, 485
isolation from (*rabbit*), 90, 501
**Blood count,** ammonium chloride acidosis effect on (*man*), 65, 419
carbon monoxide acclimatisation effect on (*mouse*), 91, 283
carotid sinus influence on (*rabbit*) 89, 25*P*
**Blood count,** high altitude effect on (*rat*), 61, 329
insulin action on (*man*), 66, 401
menstrual cycle effect on (*monkey*), 91, 269
red cell diameter relation to (*mammal*), 66, 386
urease injection effect on (*cat*), 96, 76
**Blood dilution,** glucose infusion production of (*dog*), 87, 328
liver glycogen recovery affected by (*cat*), 76, 426
ovulation after copulation affected by (*rabbit*), 79, 180
pituitrin anaemia and (*mammal*), 94, 130
water diuresis relation to (*rabbit*), 75, 81; (*man*), 78, 127
water drinking with pituitrin effect on (*man*), 78, 149
**Blood flow,** capillary permeability changes with changing (*mammal*), 99, 167
exercise in different subjects on, 69, 271
foetus-placenta ratio of (*goat*), 82, 505
mechanical stromuhr for measurement of (*mammal*), 67, 408
peripheral resistance affecting (*dog*), 72, 189
skeletal muscle contraction and (*dog*), 85, 375
oxygen usage affected by (*dog*), 99, 289
spectroscopic measurement during tongue contraction (*cat*), 93, 20*P*
thermostromuhr accuracy in measurement of (*mammal*), 93, 382
white thrombus formation in relation to (*mammal*), 92, 26
**Blood gas -es,** apparatuses for equilibration of, 80, 388
ether anaesthesia effect on (*rabbit*), 64, xxiv
foetal and maternal relation of (*goat*), 62, 373
foetal respiratory movements relation to (*cat*), 94, 531
measurement of pressures of, 61, 232
pump, Van Slyke pump comparison with, 66, 265
tensions in foetal and maternal (*cow*), 92, 263
tonometry, differential method of, 62, 380
**Blood histamine,** adrenalectomy effect on (*rabbit*), 99, 241
clotting effect on distribution of (*mammal*), 90, 356
content of (*mammal*), 85, 10
distribution and factors affecting (*mammal*), 96, 130
between cells and plasma of (*dog*), 85, 36*P*

**Blood histamine**, estimation of (*mammal*), 89, 257; 95, 476
inactivation by (*dog*), 70, 367
isolation from white cells of (*rabbit*), 90, 501
location in cells of, 88, 10*P*
source of (*mammal*), 90, 349
**Blood lactate**, adrenaline action on (*man*), 71, 275; (*cat*), 73, 103
carbon dioxide breathing effect on (*man*), 84, 28*P*
decapitation and decerebration effect on (*cat*), 73, 82
ergotamine effect on adrenaline action on (*mammal*), 78, 96
exercise and temperature effect on (*dog*), 77, 53
exercise at high altitude effect on (*man*), 71, 61
exercise effect after vagotomy and sympathectomy on (*dog*), 95, 461
eviscerate preparation and respiratory quotient relation to (*cat*), 71, 396
glucose infusion rate effect on (*dog*), 90, 451
heart usage of (*H-L*), 80, 21
hypophysectomy effect on adrenaline action on (*rabbit*), 88, 417
lungs in formation of, 80, 19*P*
mild exercise effect on (*man*), 69, 221
nitrous oxide effect on (*cat*), 80, 5
origin of (*H-L*), 80, 31
plasma and red cell distribution of, 75, 21*P*
removal after exercise (*dog*), 70, 271
respiratory quotient in eviscerate preparation relation to (*cat*), 79, 510
resting condition and source of (*man*), 79, 443
**Blood oxygen affinity**, foetal and maternal comparison spectroscopically (*mammal*), 82, 33
analysis, micro-technique for, 94, 550
capacity, exercise effect on (*man*), 67, 62
exercise effect on (*man*), 69, 284
foetal age effect on (*goat*), 82, 169
foetus and maternal comparison of (*cow*), 92, 249
metabolic rate relation to (*man*), 66, 142
dissociation curve of dilute (*mammal*), 71, 229
Fallot's tetralogy and (*man*), 80, 26*P*
pressure measurement of, 61, 232
rate of distribution between cells and serum (*ox*), 73, 355
saturation. *See* **Blood oxygen saturation**
**Blood oxygen tension**, pregnancy effect on (*cat*), 94, 525
vascular response to changes in (*man*), 88, 121
transport in pregnancy (*man*), 87, 97
**Blood oxygen saturation**, arterial pressure affected by (*mammal*), 61, 585
birth effect on (*sheep*), 90, 28*P*
and changes in (*sheep*), 94, 571
foetal age relation to (*sheep*), 97, 341
foetal and maternal difference of (*goat*), 83, 204
foetal carotid and umbilical arteries comparison of (*sheep*), 87, 37*P*
heart volume affected by (*dog*), 61, 301
high altitude effect on (*man*), 71, 54; 78, 21*P*
low oxygen pressure effect on (*man*), 82, 373
panting effect on (*dog*), 77, 27
pregnancy effect on uterine venous (*rabbit*), 77, 203
skeletal muscle oxygen usage affected by (*dog*), 99, 296
umbilical vessels and (*sheep*), 97, 347
**Blood pH**, ammonium chloride acidosis effect on (*man*), 65, 417
capillary tone affected by (*cat*), 62, 168
carbon dioxide combining power of (*Maia*), 84, 53*P*
carotid sinus response to (*dog*), 69, xiv
determination of, 61, 448
exercise effect on (*man*), 66, 154
in different subjects affecting, 69, 274
foetal and maternal comparison of (*goat*), 80, 495
gastric secretion effect on (*man*), 79, 4*P*
glass electrode measurement of, 78, 28*P*
modification for measurement of, 81, 147
intra-ocular pressure affected by (*P-AL-Eye*), 71, 272
lactic acid changes with (*P-L-Limb*), 70, 281
oxygen carriage in foetal and maternal bloods affected by (*man*), 87, 104
oxygen poisoning effect on (*dog*), 72, 33
pregnancy effect on (*goat*), 83, 210
respiratory quotient changes with diet and (*rabbit*), 88, 1*P*
**Blood phosphate** compounds (*mammal*), 68, 207
decapitation effect on (*cat*), 76, 390
distribution, comparative study of (*mammal*), 65, 374
with pH (*man*), 63, 1
exercise effect on (*man*), 61, 37; 69, 225

Blood phosphate, heart action on (*H-L*), 80, 38
salivary secretion effect on (*cow*), 86, 39
Blood pressure, acetate action on (*mammal*), 66, 372
acetylcholine graded action on (*cat*), 64, XII
adenine compounds action on (*mammal*), 72, 294
adenosine action on (*mammal*), 68, 231
adenyl compounds action on (*mammal*), 80, 349
adrenalectomy effect on response to sympathetic stimulation and drugs (*cat*), 96, 146
adrenaline action on knee jerk affected by (*cat*), 88, 484
apnoea relation to (*cat*), 69, 496
effect after ether on (*cat*), 63, 152
age effect on (*dog*), 73, 308; (*rabbit*), 95, 200
amines related to adrenaline action on (*mammal*), 95, 493
aorta occlusion effect on (*dog*), 71, 282
arterial wall resistance effect on (*man*), 81, 270
blood flow relation to (*dog*), 72, 194
blood oxygen saturation effect on (*mammal*), 61, 585
brain acetone extract effect on (*rabbit*), 85, 404
carotid sinus and aortic reflexes relation to undulatory changes in, 84, 56*P*
and respiratory reflexes with change in (*dog*), 69, 256
reflex action on (*dog*), 79, 53
cerebellar electrical activity affected by (*cat*), 94, 70
cerebro-spinal fluid pressure relation to (*man*), 91, 194
chloralose action on (*cat*), 65, 450
circle of Willis and control of (*mammal*), 65, 210
continuous recording of (*man*), 95, 239
coronary blood flow relation to (*dog*), 64, 343
coronary circulation variation with, 65, 364
creatinine clearance in cold and warm kidney relation to (*P-L-K*), 89, 210
cyclohexylalkylamines action on (*mammal*), 97, 458
depressor and carotid sinus nerves function in controlling (*mammal*), 70, 224
diuresis, osmotic work and efficiency of kidney affected by (*P-L-K*), 97, 370
ear recording in unanaesthetized animal (*rabbit*), 81, 265
Blood pressure, ether action on (*cat*), 78, 286
exercise and pulse rate with (*man*), 66, 336
eye vessels and (*cat*), 62, 1
-flow curve, hind limb showing (*dog*), 78, 346
foetal and maternal relation (*cat*), 74, 397
glomerular pressure relation to (*H-L-K*), 72, 364
gravity effect on (*cat*), 98, 79
haematoporphyrin sensitization and light action on (*cat*), 64, 36
haemorrhage effect on (*cat*), 84, 405
heart work and (*tortoise*), 65, 150
histamine action on (*cat*), 61, 205; (*rabbit*), 63, 213
production by heart, variation with (*H-L*), 86, 437
hordenine compounds action on (*cat*), 92, 426
hyperpnoea effect on (*man*), 66, 307
insulin action on (*dog*), 62, 343; 82, 154
intestinal rhythm effect on (*cat*), 74, 490
intra-ocular pressure affected by (*dog*), 71, 7
relation to (*cat*), 64, 80
intrarenal pressure affected by changes in (*P-L-DK*), 87, 18*P*
intravenous fluid effect on (*cat*), 99, 5*P*
inulin and creatinine clearances affected by (*dog, P-L-K*), 98, 99
ischaemic kidney secretion raising (*dog*), 94, 281
ischaemic muscle contraction reflex effect on (*man*), 89, 372
liver diet effect on (*cat*), 90, 89*P*
measurement in embryo of (*chick*), 62, XXVII
in tail of intact rat, 93, 301
methoxy-phenyl-ethylamines action on (*mammal*), 76, 233
methoxy-phenyl-methoxy-ethylamines action on (*mammal*), 81, 425
morphothebaine-dimethylether action on (*mammal*), 100, 67
over-ventilation effect on (*cat*), 70, 301
and factors affecting (*man*), 64, XXIII
oxytocin effect on (*cat, fowl*), 65, 435
phenylethylamine derivatives action on (*mammal*), 98, 433
pilocarpine action on (*cat*), 63, 42
pitressin after thyroid feeding on (*rabbit*), 68, 169
pituitrin action on (*fowl*), 76, 166
receptors, branchial vessels and (*dogfish*), 84, 187
reflexes, foetus and development of (*mammal*), 83, 229
urethane effect on (*rabbit*), 64, 318

**Blood pressure** regulation, carotid sinus share in (*dog*), 61, xviii
renal hypertension effect on response to drugs (*rabbit*), 99, 304
renal ischaemia cross-perfusion effect on (*dog*), 96, 44*P*
renal oxygen consumption affected by (*dog*), 65, 106; (*P-L-K*), 96, 92
secretin action on (*cat*), 66, 14
S-methyl iso-thiourea sulphate effect on (*mammal*), 100, 475
sphygmometer measurement of (*frog*), 67, xi
splenic contraction rate relation to (*cat*), 74, 295
splenic rhythm relation to (*cat*), 74, 299
splenic volume relation to (*cat*), 74, 318
stilboestrol action on (*cat*), 95, 425
submaxillary gland response to chorda stimulation dependent on (*cat*), 70, 451
sympathectomy effect on reflex changes in (*cat*), 97, 275
temperature change affecting (*frog*), 75, 34
temperature effect on (*frog*), 76, 473
traumatic shock effect on (*cat*), 92, 364
tropical climate effect on (*man*), 99, 496
urease effect on (*cat*), 96, 81
ureter pressure relationship on urine flow (*H-L-K*), 71, 384
uterine movements affecting (*cat*), 84, 342
vagus stimulation effects on (*cat*), 61, 131
vaso-motor activity effect on peripheral measurement of (*man*), 95, 244
venous obstruction effect on (*cat*), 61, 288
venous pressure relationship, kidneys and (*H-L-K*), 72, 54
ventricle energy expenditure in relation to (*tortoise*), 91, 27
viscosity alteration with (*P-Limb*), 78, 359
vitamin $D_3$ effect on (*dog*), 90, 62*P*
**Blood pressure waves**, splenic contractions relation to (*cat*), 74, 312
**Blood sugar**, adrenalectomy effect on (*cat*), 81, 95
adrenaline action on (*cat*), 73, 103
after adrenalectomy, thyroidectomy and hypophysectomy (*rat*), 88, 193
after liver exclusion (*rabbit*), 93, 162
adrenaline and insulin action on (*chick embryo*), 72, 417
alcohol action on (*cat*), 66, 105
alcohol diuresis effect on (*man*), 71, 405
alkali effect on (*cat*), 62, xxxiii
anaesthetics action on (*cat*), 76, 395; (*rabbit*), 78, 370
anterior pituitary extract and insulin action on (*rabbit*), 93, 63
**Blood sugar**, aqueous humour sugar relation to (*rabbit*), 62, 321
body temperature and (*rabbit*), 63, xii
cabbage extracts effect on (*rabbit*), 94, 250
carbon dioxide effect on cell-plasma distribution of, 84, 29*P*
cervical nerve and ganglion stimulation effect on (*cat*), 95, 328
decapitation and decerebration effect on (*cat*), 73, 82
distribution, insulin and (*rabbit*), 61, 116
ephedrine action on (*mammal*), 68, 247
ergotamine effect on adrenaline action on (*mammal*), 78, 96
exercise capacity in relation to (*dog*), 77, 55
extra-hepatic source of (*rabbit*), 93, 164
glucose utilization with infusion rate in relation to (*dog*), 90, 451
glycosuria relation with glucose infusion to (*dog*), 87, 323
glycotropic factor action after hepatectomy on (*rabbit*), 92, 190
haemorrhage effect on (*cat*), 84, 402
heart glycogen relation to (*rat H-L*), 99, 210
heart usage of (*H-L*), 80, 21
hypophysectomy effect on adrenaline action on (*rabbit*), 87, 3
hypophysectomy in young effect on (*rabbit*), 88, 403
insulin. *See* **Blood sugar, insulin**
intravenous glucose effect on (*man*), 95, 4*P*
iodoacetate effect on (*rabbit*), 75, 4*P*
lactation effect on (*man*), 77, 100
liver exclusion in unanaesthetized animal effect on (*rabbit*), 91, 422
lungs usage of (*P-L*), 82, 46
nitrous oxide effect on (*cat*), 80, 5
onium salts action on (*rabbit*), 83, 8*P*
phlorhizin effect after hypophysectomy on (*dog*), 77, 83
phospho-tungstic acid administration effect on (*rabbit*), 84, 362
pituitrin action on (*man*), 62, xi; (*cat*), 64, 324
after alcohol on (*cat*), 77, 247
after pancreatectomy on (*dog*), 67, 264
pituitrin and insulin antagonism on (*rabbit*), 62, viii
respiratory quotient under adrenaline action relation to (*rabbit*), 85, 337
secretin action on (*rabbit*), 66, 10
sympathectomy effect on normal variations in (*dog*), 95, 431
synthalin action on (*rabbit*), 65, 84

**Blood sugar**, thyroidectomy effect on adrenaline and insulin actions on (*rabbit*), 86, 46
toxaemia affecting insulin action on (*rabbit*), 75, 392
toxic effects of high concentration of (*rabbit*), 77, 189
urethane and ethylene anaesthesia on (*rabbit*), 64, XIX
vagus section effect on (*rabbit*), 61, 577; (*cat*), 64, 229
**Blood sugar, insulin** action affected by fat diet (*rabbit*), 81, 35
action on (*pig*), 64, XXXI; (*man*), 66, 400
in foetus on (*sheep, goat*), 92, 459
on perfused liver (*cat*), 62, 28
content of pancreas relation to (*dog*), 97, 203
output control by action on pancreas of (*cat*), 79, 416
**Blood vessels**, acetate action on (*mammal*), 66, 371
acid and alkali effect on (*cat*), 65, 25
alkali action on (*cat*), 62, 83
cocaine action on (*dog*), 71, 189
ether action on (*dog*), 78, 267
glycolysis in (*dog*), 84, 182
lung oedema and changes in (*dog*), 61, 107
post-pituitary extracts on isolated (*mammal*), 65, XIII
sympathomimetic amines action *in vivo* and perfusion of (*cat*), 98, 263
**Blood volume**, blue dye and photocell measurement of, 93, 27*P*
carbon monoxide acclimatization effect on (*man*), 87, 48
diathermy effect on (*rabbit*), 73, 361
exercise and changes in (*man*), 69, 282
growth after birth and increase in (*sheep*), 94, 541
haemorrhage effect on (*cat*), 84, 396
micromethod with blue dye and photocell (*mammal*), 93, 276
posture effect on (*man*), 70, XXXII; 72, 110
pregnancy effect on (*sheep*), 95, 159
traumatic shock effect on (*cat*), 92, 368
**'Blue arc' effect**, rods concerned in (*man*), 69, 1
**Blue-green**, extent and position in spectrum of (*man*), 98, 389
**Boat race**, blood and urine changes effected by (*man*), 78, 23*P*
**Body fat**, anterior pituitary extract effect on (*guinea-pig*), 92, 104
**Body fluid** circulation (*frog*), 63, 304
**Body height**, leg volume with posture and (*man*), 72, 129
**Body surface**, glucose tolerance relation to (*rabbit*), 73, 367
**Body temperature**, adenosine action on (*guinea-pig*), 72, 303
adrenaline discharge and (*cat*), 65, XXV
adrenaline secretion and (*cat*), 68, 313
adrenal medulla and (*rat*), 61, III
blood flow measurement by thermostromuhr affected by (*mammal*), 93, 393
blood sugar and (*rabbit*), 63, XII
circulation affected by (*frog*), 75, 33
heart and bowel comparison (*Xenopus*), 71, 163
high altitude effect on (*rat*), 61, 329
high external temperature effect on (*man*), 84, 282
nerve accommodation affected by (*frog*), 88, 246
oxygen poisoning affected by (*rat*), 89, 17*P*
panting initiated by rise in (*dog*), 77, 325
parathyroid extract effect on (*rabbit*), 77, 26*P*
pulse rate affected by (*man*), 71, 373
regulation, apparatus for automatic, 68, XII
renal function affected by (*frog*), 79, 109
respiration affected by (*man*), 71, 373
respiratory rate variation with (*dog*), 77, 19
room temperature relation to (*man*), 84, 17*P*
spinal cord activity affected by (*cat*), 94, 28*P*
urethane and ethylene anaesthesia on (*rabbit*), 64, XIX
vitamin A deficiency effect on (*rat*), 74, 73
water diuresis affected by (*rabbit*), 76, 24
water intake effect with high external temperature on (*man*), 86, 206
winter sleep and changes in (*bat*), 82, 459
**Body water.** See **Water balance**
**Body weight**, adrenal cortical hormone effect after adrenalectomy on (*rat*), 87, 231
adrenal gland weight variation with (*rat*), 76, 254
/age ratio, adrenalectomy survival time influenced by (*rat*), 86, 238
appetite influence on (*rabbit*), 90, 385
calcium intake effect on (*rat*), 100, 310
menstrual cycle effect on (*monkey*), 88, 375
ovulation response to P.U. extracts affected by (*rabbit*), 81, 345

**Body weight**, oxygen pressure and (*mammal*), 63, 336
placenta influence on (*mouse*), 92, 133
seminal vesicles relation to (*mouse*), 78, 445
thymectomy affecting puberty in relation to (*rat*), 74, 54
vein cross section in full dilatation relation to (*mammal*), 88, 258
ventricle weight relation to (*mammal*), 66, xii
**Bone**, calcium intake effect on size and strength of (*rat*), 100, 299
calcium, rickets and shift in, 70, xiii
calcium salts of (*mammal*), 78, 1*P*
carbon dioxide, decapitate eviscerated preparation and (*cat*), 68, 273
carbon dioxide reservoir in (*cat*), 69, 120
composition, new-born young and (*mammal*), 83, 46*P*
glycogen and calcification of (*rat*), 98, 6
magnesium deficiency effect on teeth and (*rat*), 99, 3
marrow fat, nitrogen contained in (*mammal*), 71, 313
marrow, nitrogen diffusion rate into (*goat*), 75, 22*P*
sympathetic nerve supply to (*cat*), 74, 37
nerve degeneration in vitamin A deficiency and overgrowth of (*dog*), 93, 42*P*; 96, 36*P*
parathyroid hormone effect on osteoclasts of (*rat*), 79, 114
phosphate diffusion from (*frog*), 79, 38
radio-active phosphorus retention in (*rat*), 100, 378
salts in young (*cat*), 82, 7*P*
sound conduction in normal hearing by (*man*), 94, 14*P*
strength tests for (*rat*), 100, 302
stretch receptors response to vibratory stimulus to (*mammal*), 93, 319
vitamin A deficiency effect on overgrowth of (*dog*), 99, 467
**Boss head**, one screw-fixing design of, 77, 15*P*
**Bound water**, method of determining, 67, xxxix
red blood cells and (*rabbit*), 73, 284
**Boutons terminaux**, nerve section and degeneration of (*cat*), 74, 4*P*
**Brachial artery**, pulse wave velocity and extensibility of (*man*), 69, 386
**Brachialis anticus**, extensor reflexes and (*cat*), 65, 316
**Brain**, acetone extract action on (*rabbit*), 85, 400
acetylcholine action on and occurrence in (*cat*), 80, 409
content in different parts of (*mammal*), 99, 439
content in insulin hypoglycaemia and $B_1$-avitaminosis (*mouse*, *pigeon*), 96, 6*P*
formation and identification (*ox*), 89, 37*P*
present in (*mammal*), 79, 1*P*
anoxaemia effect on circulation to (*cat*), 100, 108
Berger rhythm in (*monkey*), 87, 83*P*
blood lactate in resting state relation to (*man*), 79, 450
blood supply following ligature of carotid and vertebral arteries (*dog*), 87, 33*P*
cholesterol content of (*rabbit*), 68, 262
choline esterase concentration with development of (*rabbit*), 93, 2*P*
circulation, blood pressure regulation and (*mammal*), 65, 204
depressor activity of extract of (*man*), 72, 83
extract, depressor substance in, 76, 487
ganglion, choline esterase content of (*Eusepia*), 89, 369
metabolism, pyruvic acid in (*pigeon*), 81, 22*P*
nitrogen contained in (*mammal*), 71, 313
olfactory reactions in (*hedgehog*), 100, 459
oxygen and carbon dioxide tensions in (*man*, *cat*), 100, 192
oxygen uptake, vitamin $B_1$ effect on (*pigeon*), 72, 32*P*
pituitrin inactivation *in vitro* by (*guinea-pig*), 85, 508
pyruvate oxidation mechanism in (*pigeon*), 96, 7*P*
respiration, narcotics action on (*rat*), 92, 322
respiratory quotient, vitamin $B_1$ action on (*pigeon*), 79, 6*P*
sections, cerebellar electrical activity affected by (*cat*), 94, 70
polyuria relation to level of (*dog*), 98, 198
forelimb reflexes affected by level of (*cat*), 73, 1
thrombokinase preparation from, 96, 38*P*
ventricle, spermatozoa survival time in (*rat*), 79, 232
vitamin $B_1$ deficiency effect on respiration of (*rat*), 85, 456
**Branchial circulation**, anatomy of (*eel*), 76, 389

**Branchial vessels**, pressure receptors in (*dogfish*), 84, 187
**Bread**, adrenalectomy survival time influenced by (*rat*), 86, 238
**Brightness discrimination**, adaptation effect on differential (*man*), 92, 406
**Bromothyronine**, oxygen consumption affected by (*rat*), 68, 402
**Bronchial muscle**, drugs action on (*dog*), 84, 227
**Bronchioles**, adenosine action on (*guinea-pig*), 72, 301
**Bronchoconstriction**, eserine potentiation of acetylcholine (*guinea-pig*), 96, 53*P*
**Bronchodilatation**, phrenic nerve stimulation effecting (*cat*), 90, 85*P*
**Bronchus**, coughing effect on size of (*cat*), 92, 470
curarine action on (*guinea-pig*), 91, 443
direct measurement of changes in calibre of (*dog*), 84, 223
histamine action on (*mammal*), 76, 351
methoxy-phenylethylamines action on (*mammal*), 76, 241
recording of movements of (*mammal*), 70, xliv
respiration and rhythmic movements in (*dog*), 87, 298
stellate ganglion stimulation and acetylcholine action on (*guinea-pig*), 99, 57
tone, vagus action on (*dog*), 87, 307
**Brunner's glands**, gastric secretion affected by secretion of (*cat*), 69, 51
**Buck wheat**, photo-sensitizing action of (*rodent*), 100, 212
**Buffer**, carbonic acid formation from carbon dioxide affected by, 92, 36*P*
gastric juice and content of (*man*), 73, 427
**Buffer curves**, skeletal muscle and (*cat*), 63, 36
**Buffer graph**, skeletal muscle extract and (*rabbit*), 65, 132
**Buffer solutions**, haemoglobin effect on carbon dioxide uptake by, 73, 358
**Bulbar preparation**, forelimb reflexes in (*cat*), 73, 7
**Bulbus arteriosus**, oxygen consumption of (*frog*), 68, 412
**Burn**, sensory nerve action potentials resulting from (*cat*), 95, 10
**Butyl alcohol**, auricle conduction affected by (*tortoise*), 61, 294
heart affected by (*frog*), 63, 21
**Butyl chloral hydrate**, heart affected by (*frog*), 63, 24
**Butyn**, sympathomimetic action of (*mammal*), 97, 290
**Butyric acid**, acetone production by liver from (*cat*), 62, 19

**Cabbage**, carbohydrate metabolism affected by extracts of (*rabbit*), 94, 249
**Caecum**, adrenergic nerve stimulation and liberated substance effect on (*fowl*), 96, 104
exteriorized, movements of (*dog*), 76, 464
**Caffeine**, autonomic nerve stimulation affected by (*mammal*), 90, 55*P*
coronary blood flow affected by (*dog*), 64, 191
diuretic action of (*H-L-K*), 69, 153
double heart-lung-kidney preparation response to (*dog*), 68, 341
heart and action of (*dog*), 64, 370
recovery oxygen consumption of muscle affected by (*frog*), 98, 220
**Calcification**, cereals inhibiting action on (*dog*), 61, xxiv
dietary factors affecting (*rabbit*), 61, xxiii
glycogen relation to (*rat*), 98, 1
**Calcium**, acetylcholine on heart and (*frog*), 64, 137
adrenergic vascular response affected by (*rabbit*), 99, 120
amino acids effect on solubility of salts of, 100, 17*P*
auricle oxygen consumption affected by (*frog*), 68, 437
auricular conduction affected by (*tortoise*), 61, 178
blood-saliva relationship of (*dog*), 80, 98
bone and salts of (*mammal*), 78, 1*P*
bone size and strength affected by intake of (*rat*), 100, 299
cutaneous nerve-endings response affected by (*frog*), 88, 396
electrocardiogram affected by (*man*), 89, 154
ether anaesthesia on blood (*rabbit*), 64, xi
excretion, cyanide effect on kidney and (*P-L-K*), 74, 286
parathormone action on (*rat*), 76, 317
parathormone assay by (*rat*), 75, 13*P*
gall bladder absorption of (*mammal*), 70, 434
glucose absorption affected by (*rat*), 75, 434
heart affected by (*frog*), 66, 346
by adrenaline with changes in (*frog, rabbit*), 71, 435
by concentration of (*frog*), 66, 209
heart isometric response affected by (*frog*), 61, 484
intestinal absorption of sugars effect on (*rat*), 85, 109

**Calcium**, intestinal contractions affected by presence in lumen of (*mammal*), 68, 72
intestinal muscle and action of (*rabbit*), 63, 99
lack, heart electrical response affected by (*frog*), 67, XXXI; 69, 324
heart phosphagen changes with (*frog, tortoise*), 75, 341
liver and normal content of (*mammal*), 84, 39*P*
metabolism, bone osteoclasts variation with (*rat*), 79, 114
nerve excitability with electrotonus affected by (*frog*), 89, 38
nerve repetitive response to constant current affected by (*frog*), 88, 244
nerve resistance relation to interpolar length affected by (*frog*), 96, 70
neuromuscular transmission affected by dietary (*goat, chick*), 97, 330
plain muscle base and weight affected by (*Mytilus*), 91, 403
response to A.C. and potassium affected by (*Mytilus*), 92, 69
response to A.C. stimulation affected by (*Mytilus*), 94, 322
plasma: cerebrospinal fluid ratio of (*dog*), 91, 90
potassium stimulation of sympathetic ganglion inhibited by (*cat*), 86, 299
pseudo-chronaxie of muscle and (*frog*), 73, 230
sensory end-organ single preparation response to (*frog*), 71, 87
sensory nerve-endings adaptation affected by (*frog*), 79, 502
small intestine contractions and (*rabbit*), 65, VIII
staircase phenomenon affected by (*rabbit*), 75, 4
sympathetic ganglion synaptic transmission affected by (*cat*), 97, 408
tetra-ethylammonium iodide action on nerve affected by (*frog*), 91, 112
tolerance, magnitude of (*cat*), 80, 6*P*
tooth formation affected by (*rat*), 95, 51*P*; 99, 18
tooth histological structure and distribution of (*man*), 90, 403
vagus action on heart and (*frog*), 65, III
vaso-dilatation by histamine and adrenaline affected by, 87, 91*P*
vibrissae sense organ response affected by (*cat*), 98, 175
vitamin D effect on dentine (*dog*), 84, 272
**Calcium: phosphorus ratio**, tooth formation affected by (*rat*), 99, 26
**Calf**, thymus gland pressor substance, 66, 421
**Calorie intake**, liver fat without choline affected by (*rat*), 94, 53
**Calorimetry**, direct and indirect comparison (*man*), 77, 1*P*
**Camphor**, heart and action of (*dog*), 64, 371
**Cane sugar**, intestine permeability to (*rabbit*), 69, 199
muscle and diffusion of, 84, 59*P*
**'Canonical' Law**, strength-duration curve, 74, 424
**Capacity-threshold**, curare action on muscle (*frog*), 77, 368
**Capillary**, blood flow with resistance in (*dog*), 72, 190
blood, water drinking effect on concentration of (*man*), 78, 134
dilatation, exercise without lactic acid production and (*frog*), 71, 359
histamine action and (*rabbit*), 63, 215
'flare' and activity of (*man*), 64, XXXII, XXXVI
histamine action on (*mammal*), 61, 284; (*dog*), 78, 58
horse serum on permeability of (*frog*), 63, 249
permeability, horse serum effect on (*frog*), 63, 249
lung oedema and (*dog*), 61, 107
measurement of (*dog*), 61, I
oxygen lack effect on (*man*), 87, 74*P*
perfusion oedema and (*frog*), 98, 109
sympathectomy effect on (*mammal*), 99, 161
pressure, sphygmometer measurement of (*frog*), 67, XII
resistance, extravasated blood effect on (*man*), 100, 8*P*
tone, acid control of (*cat*), 62, 166
**Capillary electrometer**, nerve impulse measurement by (*mammal*), 61, 52
**Capon**, androsterone esterification and activity, 86, 49*P*
comb-growth hormone assay on, 73, 136
comb-growth maximum rate, 93, 413
**Carbamate compounds**, physiological role of, 80, 168
**Carbamino compound**, blood oxygenation effect on, 80, 156
direct chemical estimation of, 83, 68
direct determination in haemoglobin of, 81, 21*P*
**Carbamino equilibria**, blood and, 85, 17*P*
**Carbamino haemoglobin**, evidence for formation of, 72, 7*P*

**Carbamino haemoglobin**, physiological importance of (*man*), 88, 48
**Carbohydrate**, absorption, selective action in (*mammal*), 70, 404
autolysis of placenta and changes in (*rabbit*), 81, 183
diet, glucose tolerance and insulin action affected by (*rabbit*), 81, 32
liver fat with choline and (*rat*), 94, 55
intermediary metabolism, anaerobic heart and (*frog*), 80, 462
iodoacetate effect on aerobic heart usage of (*frog*), 90, 336
metabolism. *See* **Carbohydrate metabolism**
perfused liver production of (*mammal*), 61, 503
**Carbohydrate metabolism**, adrenaline action on muscle glycogen in (*cat*), 70, 74
adrenaline and insulin actions on (*rabbit*), 79, 286
anterior pituitary extract and insulin action on (*rabbit*), 93, 63
cabbage extracts effect on (*rabbit*), 94, 249
decapitation and decerebration effect on (*cat*), 73, 81
diphtheria toxin action on (*rabbit*), 75, 381
exercise effect on (*man*), 93, 145
heart and (*frog*), 72, 447
heart and oxygen pressure effect on (*frog, tortoise*), 77, 436
heart perfused and (*frog*), 75, 311
insulin action in foetus on (*dog*), 92, 219
intestine and (*mammal*), 85, 239
nitrous oxide effect on (*cat*), 80, 1
phosphates in muscle and (*cat*), 62, 174
pituitary gland relation to insulin and adrenaline actions on (*rabbit*), 83, 157
placental glycogen in (*rabbit*), 67, 362
plain muscle and (*Mytilus*), 87, 56
synthalin action on (*mammal*), 65, 83
toxaemia effect on (*rabbit*), 82, 399
**Carbon dioxide**, air-tissue relationship of (*rabbit*), 66, II
alcohol absorption in small intestine affected by (*cat*), 62, 14
apneustic centre affected by (*cat*), 93, 263
directly and reflexly by (*cat*), 95, 369
arterial blood-alveolar air relationship (*man*), 68, 281
blood carriage of, 80, 143
blood lactate affected by breathing of (*man*), 84, 28*P*
blood osmotic pressure affected by addition of (*man*), 73, 311
blood and urine output affected by inhalation of (*man*), 90, 74*P*
**Carbon dioxide**, brain and tension of (*man, cat*), 100, 192
buffers effect on hydration of, 92, 36*P*
carbamino compounds in transport of (*man*), 88, 40
carbonic anhydrase action on, 80, 127
cardiac output measurement and equilibrium of (*man*), 70, 244
by acetylene and (*man*), 90, 104
catalyst, haemoglobin relation to, 75, 3*P*
cerebro-spinal fluid absorption affected by (*dog*), 95, 373
circulation affected by changes in (*cat*), 70, 301
coronary blood flow affected by (*dog*), 64, 189; (*H-L*), 68, 331
decapitate eviscerated preparation production of (*cat*), 68, 265
decerebrate rigidity affected by, 69, IX
diffusion rate into red blood cells (*ox*), 73, 354
dissociation curve, ammonium chloride acidosis and (*man*), 65, 414
foetal and maternal (*goat*), 80, 494; (*man*), 87, 105; (*cow*), 92, 257
foetal blood and (*goat*), 62, 378
haemoglobin and carbhaemoglobin comparison of (*man*), 88, 48
high altitude effect on (*man*), 71, 49
skeletal muscle and (*frog*), 68, 57
temperature effect on, 67, 289
elimination, inspiratory resistance effect on (*man*), 84, 166
embryonic blood sugar affected by (*chick*), 72, 413
equilibrium between venous blood and rebreathed air (*man*), 67, 315
estimation in blood and tissues of, 86, 153
expired air and serial analysis of (*man*), 65, 391
gastric contents and presence of (*man*), 65, 69
glycolysis in lungs affected by (*P-L*), 82, 53
haemoglobin catalysis of hydration of, 72, 6*P*
reaction with, 70, 383
vapour pressure affected by, 72, 7*P*
heart usage of sugar and lactate affected by (*H-L*), 80, 26
heart volume affected by (*dog*), 61, 298
hydration time of, 70, 381
hyperpnoea, arterial blood *p*H changes with (*man*), 74, 471
lung reflexes affected by excess of (*dog*), 74, 102
lung stretch receptors affected by (*cat*), 79, 340

**Carbon dioxide**, motor response to stimulation of cerebral cortex affected by (*cat*), 99, 320
nerve recovery rate affected by (*frog*) 68, 11
output, circulation rate measurement and (*man*), 66, 126
evisceration affect on (*cat*), 66, 406
gastric secretion effect on (*man*), 70, 186
panting affected by administration of (*dog*), 77, 26
plain muscle 'economy' of contraction affected by (*snail*), 69, 457
pleura and diffusion of (*cat*), 82, 416
production, thyroid extract standardization and (*mouse*), 67, 234
reservoir, over-ventilation and (*cat*), 69, 116
respiration affected by (*man*), 72, 175
by excess of (*frog*), 95, 309
by high concentration of (*cat*), 74, 156
respiratory response after carotid sinus chronic denervation to excess of (*rabbit*), 88, 428
serum and combinations of (*man*), 90, 48*P*
skeletal muscle inexcitability caused by (*frog*), 70, 394
**Carbon dioxide tension**, blood osmotic pressure affected by (*man*), 70, 432
carbon monoxide poisoning and (*rabbit*), 68, 82
egg incubation and air space (*hen*), 94, 370
fluids, and measurement of, 61, 232
gall bladder and (*mammal*), 77, 7*P*
haemoglobin and tissue (*rabbit*), 65, 270
heat tension relation in muscle contraction affected by (*frog*), 91, 286
high altitude and alveolar air-arterial blood equilibrium of (*man*), 71, 53
oxygen pressure effect on (*rabbit*), 62, 220
*p*H of blood with (*man*), 63, 349
skin surface and (*man*), 67, IX
tissues and (*mammal, cold-blooded*), 61, 248
**Carbon monoxide**, acclimatization effect on blood with (*mouse*), 91, 283
acclimatization to (*mammal*), 80, 11*P*; (*man*), 83, 35*P*; 87, 41
carbonic anhydrase affected by, 80, 133
heart weight affected by (*mouse*), 77, 8*P*
photoelectric determination of blood, 98, 23*P*
poisoning, tissue oxygen tension in (*rabbit*), 68, 81
rate of uptake by red blood cells of (*sheep*), 62, 241
spleen contraction with (*man*), 72, 117
**Carbon tetrachloride**, choline action on liver fat affected by (*rat*), 97, 103
**Carbonate**, gastric juice buffering power and (*man*), 73, 437
**Carbonic acid**, buffers effect on formation from carbon dioxide of, 92, 36*P*
carbonic anhydrase action on, 80, 127
**Carbonic anhydrase**, discovery of, 75, 4*P*
gastric mucous cells and concentration of (*mammal*), 94, 16*P*; 97, 37
inhibitor in serum to (*pig*), 87, 41*P*; (*mammal*), 91, 474
inhibitor, species distribution of, 91, 486
preparation and properties of, 80, 113
presence of (*marine invertebrates*), 80, 171
properties of, 75, 15*P*
red blood cells and factors limiting activity of, 93, 117
substrate limitation for action of, 93, 8*P*
**Carboxyhaemoglobin**, photographic measurement of, 64, 405
**Carboxypolypeptidase**, pancreatic juice containing (*man*), 94, 557
trypsin separation from, 90, 331
**Carcinoma**, creatine and phosphate compounds in (*mammal*), 75, 138
**Cardiac cycle**, coronary circulation changes in (*mammal*), 74, 3
coronary flow and (*dog*), 65, 360; (*dog, H-L*), 79, 317
vagal stimulation producing lengthening of (*cat*), 82, 213
**Cardiac depression**, pitressin and thyroid production of (*rabbit*), 68, 166
**Cardiac depressor nerve**, impulses in (*mammal*), 61, 67
**Cardiac glycogen**, factors affecting (*rat*), 82, 468
**Cardiac irregularities**, hypothalamic excitation and (*cat*), 81, 382
**Cardiac metabolism** (*frog*), 70, VII
aglycaemia effect on (*dog*), 80, 179
oxygen pressure effect on (*frog*), 77, 432
thyroid feeding effect on (*rat*), 74, 403
**Cardiac muscle**, acetylcholine action on (*frog*), 64, 123
adenylic acid content of (*rabbit*), 72, 292
buffering power of (*cat*), 63, 37
differential paralysis of nerve endings and (*frog*), 62, 88
haematoporphyrin sensitization and light action on (*rabbit*), 64, 35
histamine liberation by (*H-L*), 86, 431
lactic acid maximum of (*frog*), 63, 107
phosphagen in (*frog*), 63, 155
phosphate content with amino acid added to (*H-L*), 86, 9
rhythmical contraction of embryonic (*chick*), 63, V
urease effect on (*rabbit*), 96, 80

**Cardiac nerve-heart preparation** (*Scyllium*), 69, 24
**Cardiac nerves**, antagonism of (*mammal*), 83, 332
preparation for excitation of (*frog*), 65, xxx
pulmonary plexus containing (*dog*), 84, 203
respiratory accelerator action of (*mammal*), 96, 233
**Cardiac output**, acetylcholine action on (*cat*), 77, 407
acetylene and carbon dioxide methods comparison in measurement of (*man*), 90, 104
acetylene method for measurement of (*man*), 70, xxxix
artificial peripheral vascular system and (*dog*), 72, 186
blood distribution in body affecting (*dog*), 71, 280
coronary blood flow relation to (*dog*), 64, 343; 65, 371
Fick principle and (*man*), 67, 52; 70, 244
foetal age and changes in (*goat*), 82, 503
histamine action in different species on (*mammal*), 70, 5
intrathoracic pressure and (*dog*), 63, 88; (*H-L*), 69, 247
pulmonary gas embolism effect on (*cat*), 87, 11
reflex variation of heart rate with (*dog*), 61, 227
ventricle oxygen consumption relation to (*tortoise*), 72, 256
**Cardiac pacemaker**, vagal inhibition of (*cat*), 90, 14*P*
**Cardiac reflex**, blood pressure regulation by (*mammal*), 70, 233
ergotamine action on (*cat*), 69, 344
**Cardiac sphincter**, innervation of (*cat*), 81, 6*P*
**Cardiac vagus**, exercise effect on heart rate in absence of (*dog*), 83, 317
guanidine action on, 84, 16*P*
heart rate in exercise after sympathectomy affected by (*dog*), 87, 357
**Cardio-aortic nerves**, respiration affected by section of (*dog*), 77, 6
**Cardio-inhibitory centre**, adrenaline action on (*dog*), 76, 7*P*; 77, 68
variations in activitity of, 71, 417
**Cardio-pulmonary circulation**, systemic blood flow affected by adrenaline action on (*dog*), 76, 342
**Cardio-vascular reflexes**, aortic pressure and (*dog*), 61, 268
**Carnosine**, rigor muscle buffering and (*ox*), 92, 340
**Carotene**, liver uptake on injection of (*cat*), 82, 75
liver storage of (*rat*), 83, 236
**Carotid arteries**, anastomoses between internal and external (*dog*), 84, 388
**Carotid body**, chemoreceptor stimulation mechanism in (*cat*), 96, 42*P*
reflexes from (*cat*), 83, 461
**Carotid gland**, respiration affected by chemical stimulation of (*frog*), 95, 323
**Carotid nerve**, anoxaemia and asphyxia effect on impulses in (*cat*), 83, 459
carbon dioxide tension effect on discharges in (*cat*), 85, 309
chemical changes in blood and impulses in (*cat*), 82, 23*P*
respiratory reflexes and function of (*dog*), 69, 261
**Carotid sinus**, adrenaline apnoea and (*cat*), 69, 494
anoxaemia effect on (*dog*), 71, v
anoxaemia response dependent on (*cat*), 95, 43*P*
apneustic centre affected by chemoreceptors in (*cat*), 95, 385
blood pressure regulation and (*rabbit*), 65, 207; (*mammal*), 70, 224
in absence of (*dog*), 61, xxviii
blood regeneration affected by (*rabbit*), 89, 25*P*; 93, 75
capacity effects from, 84, 24*P*
chemical receptors, latent period and adaptation of (*cat*), 85, 315
gravity action on blood pressure affected by (*cat*), 98, 88
nerve. *See* **Carotid nerve**
reflex. *See* **Carotid sinus reflex**
respiration affected by chronic denervation of (*rabbit*), 87, 70*P*
respiratory failure following denervation of (*dog*), 87, 48*P*
respiratory reflexes from (*dog*), 69, xiii; 69, 254
respiratory response to blood changes after chronic denervation of (*rabbit*), 88, 425
**Carotid sinus reflex**, adrenaline central depressor action and (*rabbit*), 92, 113
adrenaline effect on cardio-inhibitory centre and (*dog*), 77, 70
anaesthetics action on (*dog*), 90, 58*P*
central mechanism in addition to (*H-L-Head*), 69, xxxix
coronary circulation and (*dog*), 73, 51
cyanide and nicotine effect on, 85, 7*P*
decerebrate preparation for, 70, xvii

**Carotid sinus reflex**, depressor effect of very low pressures in (*dog*), 73, 45
development with age and asphyxia effect on (*rabbit*), 95, 193
ergotamine action on (*cat*), 69, 338
renal hypertension effect on (*dog*), 89, 3*P*
respiratory and vasomotor centres affected by (*dog*), 79, 49
venous pressure, liver volume and heart volume affected by (*dog*), 69, xxviii
**Carrot**, oxygen lack resistance affected by (*rat*), 93, 31*P*
**Casein**, liver cholesteryl esters affected by (*rat*), 87, 55*P*
liver fat affected by (*rat*), 86, 337
**Castor oil**, subcutaneous rate of absorption of (*rodent*), 78, 156
**Castration**, adrenal gland changes following (*rat*), 91, 367
androgens action on prostate and seminal vesicles affected by (*guinea-pig*), 94, 34
seminal vesicles affected by (*mouse*), 78, 446
**Cafalase**, cell respiration with inhibition of (*rat*), 84, 52*P*
**Catelectrotonus**, anti-curare action of sub-threshold (*frog*), 95, 286
development rate in nerve of (*frog*), 82, 361
nervous impulse transmission and (*frog*), 89, 11*P*
neuro-muscular block reversed by (*frog*), 92, 20*P*
**Caterpillar**, nerve impulse velocity in, 70, xxxiv
**Cathode ray oscillograms**, photographic recording improvement of, 84, 25*P*
**Cathode-ray tube**, uses in physiology of, 77, 39*P*
**Cathode stimulus**, alpha excitability and (*frog*), 75, 449
**Caudate nucleus**, direct excitation of (*cat*), 86, 55*P*
**Cell-division**, monocytes *in vitro* and (*hen*), 90, 23*P*
speeding-up *in vitro* of (*chick*), 100, 2*P*
**Cell growth**, aldehydes action *in vitro* on (*chick*), 96, 16*P*
**Cell membrane**, diffusion resistance and partition coefficients, 96, 3*P*
large molecules diffusion through, 98, 19*P*
**Cell mitosis**, colchicine action on (*rat*), 86, 63*P*
**Cell respiration**, catalase inhibition effect on (*rat*), 84, 52*P*
**Cellobiose**, mammary gland utilization of (*rabbit*), 73, 6*P*
**Central excitatory state**, detonator action in sympathetic ganglion relation to (*cat*), 91, 5
'direct' and delayed (*cat*), 69, 16
duration of (*cat*), 69, 9
potential changes in relation to (*Dytiscus*), 72, 145
sympathetic ganglion and (*cat*), 85, 231
sympathetic ganglion N potential waves and (*cat*), 85, 493
**Central inhibitory state**, sympathetic ganglion and (*cat*), 85, 231
sympathetic ganglion P potential waves and (*cat*), 85, 495
**Central nervous system**, acetylcholine distribution in (*mammal*), 99, 436
adrenaline action on (*cat*), 88, 487
anti-cholinesterases action in (*cat*), 92, 6*P*; 96, 302
aorta occlusion effect on systemic blood flow influenced by (*dog*), 82, 377
by removal of (*dog*), 85, 48
autoclaved meat diet and changes in (*cat*), 62, xiii
cyclohexyl-alkylamines action on (*mouse*), 97, 456
effects of section of (*crayfish*), 67, 166
electrotonic conduction of grey matter potentials in, 86, 29*P*
eserine and acetylcholine action on (*cat*), 89, 165
eserine local action on (*cat*), 91, 212
foetal movements affected by sections of (*sheep*), 91, 345
by chronic lesions of (*sheep*), 89, 55*P*
hordenine compounds action on (*cat*), 92, 422
morphothebaine-dimethylether action on (*various*), 100, 66
ovulation and pseudo-pregnancy resulting from stimulation of (*rabbit*), 86, 327
oxygen poisoning affected by (*dog*), 94, 297
prostigmine action on (*cat*), 89, 394
solitary tract extension in embryonic (*sheep*), 90, 29*P*
stimulants, motor cortex and pyramidal tract activity affected by (*mammal*), 97, 192
ovulation induced by (*rabbit*), 97, 128
tracts, nomenclature of, 86, 18*P*
vitamin A deficiency and early lesions in (*rat*), 94, 310
effect on (*rat*), 89, 2*P*
**Cercal nerve**, auditory stimuli and action potentials in (*cockroach*), 87, 4*P*
1 to 3 and 1 to 4 alternation in (*cricket*), 87, 57*P*

Cereals, anti-calcifying properties of (*dog*), 61, xxiv
Cerebellum, action potential frequency of (*cat*), 83, 32*P*
cerebral cortex action potentials affected by stimulation of (*cat*), 90, 39*P*
electrical activity and functional significance of (*cat*), 94, 67
fore-limb reflexes in decerebrate preparation with ablation of (*cat*), 73, 16
respiration affected by (*dog*), 96, 26*P*
Cerebral anaemia, motor cortex and pyramidal tract activity dissociation with (*mammal*), 97, 164
Cerebral anoxaemia, heart reflexes affected by (*dog*), 61, 222
Cerebral blood flow, carotid sinus pressure relation to (*dog*), 79, 57
reflex regulation of (*dog*), 84, 367
Cerebral blood pressure, heart rate affected by (*dog*), 61, 219
respiratory and vasomotor centres affected by (*dog*), 79, 53
Cerebral circulation, anoxaemia effect on (*cat*), 100, 198
Cerebral concussion, factors concerned in (*mammal*), 99, 153
traumatic shock in experimental, 99, 6*P*
Cerebral cortex action potentials, cerebellar stimulation effect on (*cat*), 90, 39*P*
action potential frequency of (*cat*), 83, 32*P*
from (*rabbit*), 81, 440
white matter affecting (*rabbit*), 90, 41*P*
after discharge with stimulation of (*rabbit*), 88, 147
conduction rate of impulses in (*rabbit*), 88, 145
drugs action on motor responses to stimulation of (*cat*), 99, 312
electrical activity of (*rabbit*), 80, 1*P*
facilitation following stimulation of (*rabbit*), 88, 143
facilitation with electrical stimulation of (*cat*), 89, 1*P*
foot double representation in sensory area of (*cat*), 98, 16*P*
high frequency discharges from (*mammal*), 95, 27*P*
motor area and pyramidal tract activity (*mammal*), 97, 157
narcotics action on respiration of (*rat*), 92, 323
potential changes with stimulation of (*mammal*), 88, 127
sensory organs afferent discharges to (*mammal*), 100, 159
Cerebral cortex, stimulation effecting superficial and deep response of (*rabbit*), 88, 133
stomach movements affected by stimulation of (*monkey*), 83, 177
white matter action potentials in (*mammal*), 97, 174
Cerebral vaso-motor tone, cerebral blood flow reflex regulation and (*dog*), 84, 367
Cerebro-spinal fluid, acetylcholine appearance in (*dog*), 86, 277
acetylcholine content of (*mammal*), 93, 45*P*
present in (*cat*), 80, 415
bicarbonate content of (*man*), 100, 197
calcium, plasma calcium relation to (*dog*), 91, 90
carbon dioxide effect on sub-arachnoid absorption of (*dog*), 95, 373
drugs on protein content of (*rabbit*), 64, xxvii
non-electrolytes concentration after injection (*cat*), 95, 139
pituitrin inactivation in (*dog*), 85, 504
pressure, erect posture effect on (*man*), 91, 186
salt deficiency effect on composition of (*man*), 92, 214
ultra-violet absorption spectra of (*man*), 62, xxv
Cervical sympathetic nerve, conduction in (*cat*), 81, 228
blood sugar affected by stimulation of (*cat*), 95, 328
Cervix uteri, oxytocin action on (*mammal*), 89, 309
Charcoal, heart affected by activated (*frog*), 73, 9*P*
Chemotaxis, monocyte cannibalism *in vitro* and (*hen*), 91, 22*P*
Chicago blue, blood clotting time affected by (*rabbit*), 74, 65
liver glycogen recovery affected by (*cat*), 76, 433
Chick. *See* Embryo
Chloral hydrate, brain metabolism affected by (*rat*), 92, 324
nerve conduction affected by (*frog*), 61, 314
Chloralosane, cardio-accelerator neurones affected by (*dog*), 83, 334
Chloralose anaesthesia, alveolar carbon dioxide tension affected by (*cat*), 99, 85
blood lymphocytes affected by (*dog*), 85, 450
blood sugar and liver glycogen affected by (*cat*), 76, 405

**Chloralose anæsthesia**, cerebral cortical activity with sense organ stimulation affected by (*mammal*), 100, 176
liver glycogen affected by (*cat*), 84, 40*P*
formation affected by (*cat*), 87, 114
motor cortex and pyramidal tract activity affected by (*mammal*), 97, 170
pharmacodynamical action of (*cat*), 65, 449
water diuresis and its inhibition affected by (*dog*), 81, 245
after intravenous administration affected by (*cat*), 76, 457
**Chlorazol, anticoagulant action of** (*mammal*), 74, 9*P*
**Chlorazol blue**, blood clotting time affected by (*rabbit*), 74, 65
**Chlorazol fast pink**, efficiency as anticoagulant of, 78, 25*P*
pericardial oedema resulting from (*cat*), 84, 63*P*
**Chlorazol sky blue**, anticoagulant action of, 90, 379
**Chloretone**, brain metabolism affected by (*rat*), 92, 324
**Chloride**, aqueous humour-blood diffusion relation of (*P-AL-Head*), 98, 141
aqueous humour-serum relationship in (*mammal*), 94, 118
clearance, cooling effect on (*P-L-K*), 89, 207
Ringer diuresis effect on (*P-L-K, dog*), 98, 340
diffusion rate and distribution in muscle of (*frog*), 90, 177
dilution in plasma and muscle with water intake (*cat*), 90, 465
electrometric titration method of estimating, 90, 169
excretion. *See* **Chloride excretion**
exercise and changes in (*man*), 63, x
gastric acidity and secretion of (*man*), 66, 358
gastric secretion of (*man*), 65, 63
and concentration of (*cat*), 73, 126
giant nerve fibre and content of (*squid*), 98, 306
gill secretion of (*eel*), 75, 226
peptic activity affected by (*man*), 67, 413
potassium action on diffusion into muscle of (*frog*), 100, 42
renal threshold of (*man*), 67, 199
secreting cells, fish gills and (*eel*), 76, 368
shift, carbonic anhydrase activity relation to, 93, 124
**Chloride, skeletal muscle and diffusion of** (*frog*), 97, 233; 100, 246
interfibre space volume measured by (*frog*), 99, 406
permeability to (*frog*), 100, 5
**Chloride excretion**, alcohol effect on (*man*), 71, 410
caffeine effect on (*H-L-K*), 69, 161
cyanide effect on (*P-L-K*), 74, 286
diabetic coma effect on (*man*), 95, 40
diffusion equation applied to (*rabbit*), 61, 598
exercise effect on (*man*), 90, 90*P*
high external temperature effect on (*man*), 84, 418
hypophysectomy and water diuresis effect on (*dog*), 98, 201
noxious agents effect on (*rat*), 97, 4
pituitrin action on (*man*), 66, x
on isolated kidney and (*dog*), 65, 107
post-pituitary and acetylcholine action on (*dog*), 95, 232
renin action on (*rabbit*), 98, 319
ureter pressure increase effect on (*H-L-K*), 71, 385
**Chloroform**, blood cholesterol affected by (*rabbit*), 77, 98
blood sugar and liver glycogen affected by (*cat*), 76, 397
cerebral action potentials with ether and (*rabbit*), 81, 445
chronaxie affected by (*cat*), 62, 120
lung stretch receptors affected by (*cat*), 79, 342
spleen volume affected by (*cat*), 78, 265
**Chlorophyll**, haemoglobin regeneration affected by (*rabbit*), 86, 388
**Cholagogues**, secretin and bile salts action as (*cat*), 64, 331
**Cholesterol**, adrenal gland and effect of female reproductive cycle (*rat*), 90, 296
choline action on liver fat and (*rat*), 81, 413; 84, 7*P*; 86, 343
insulin action on (*rabbit*), 69, VII
liver fat affected by choline with (*rat*), 78, 415
metabolism, endocrine control of (*rabbit*), 70, 441
sex differences in distribution of (*rabbit*), 68, 259
tissues and concentration of (*rabbit*), 66, 251
**Cholic acid**, pancreatic secretion stimulated by (*cat*), 61, 423
**Choline**, accessory food factor nature of (*rat*), 84, 38*P*

Choline, acetoacetic acid production in sliced liver affected by (*rat*), 85, 367
adrenal gland and distribution of (*mammal*), 81, 37*P*
diabetic glycosuria affected by (*dog*), 85, 8*P*
epilepsy affected by substances like (*man*), 99, 8*P*
esters, tissue extracts and identification of, 79, 255
intra-ocular pressure affected by (*dog*), 71, 17
kidney and occurrence of ester of (*horse*), 84, 32*P*
liver extract and content of (*ox*), 62, 410
liver fat. *See* Choline, liver fat
liver respiration in slices and mince affected by (*rat*), 85, 356
phosphorus action on liver fat affected by (*rat*), 83, 275
skeletal muscle affected by esters of (*mammal*), 89, 47
sympathetic ganglion affected by (*cat*), 83, 122
and function of (*cat*), 88, 275
tissue slices respiration affected by (*rat*), 85, 362
weight affected by vitamin $B_1$ and (*rat*), 85, 345
Choline, liver fat and cholesterol affected by (*rat*), 86, 343
affected by (*rat*), 75, 405
affected by cholesterol with (*rat*), 78, 415
affected by lack in diet of (*rat*), 86, 315
after pancreatectomy affected by (*dog*), 79, 94
in carbon tetrachloride poisoning affected by (*rat*), 97, 103
in starvation affected by (*rat*), 94, 48
on different diets affected by (*rat*), 83, 255
on high fat and cholesterol diets affected by (*rat*), 81, 414
with cholesterol feeding affected by (*rat*), 84, 7*P*
Choline esterase, brain development and concentration of (*rabbit*), 93, 2*P*
plain muscle and content of (*invertebrate*), 89, 368
myasthenia gravis and blood content of, 84, 56*P*
skeletal muscle and occurrence of (*frog*), 89, 359
contraction affected by inhibitors of (*mammal*), 89, 52
development and amount of (*bird, mammal*), 95, 29
nerve endings and (*various*), 92, 37
Choline esterase, sympathetic ganglia and pre-ganglionic fibre action on (*cat*), 89, 432
tetanus toxin effect on muscle (*rat*), 96, 168
Cholinergic nerve, definition of, 80, 10*P*
electric organ supplied by (*Torpedo*), 97, 3*P*
Cholinergic nerve-endings, potassium liberation of acetylcholine from (*mammal*), 86, 306
Chorda tympani, acetylcholine liberation on stimulation of (*mammal*), 76, 15*P*
degeneration, acetylcholine content of salivary gland after (*dog*), 82, 145
stimulation, acetylcholine in saliva following (*cat*), 81, 83
vasoconstrictor fibres in (*cat*), 70, 449
Chromaffine cells, prostate and presence of (*cat*), 81, 109
Chromatophore muscle fibres, strength-duration curve of (*Sepia*), 83, 433
myograms from (*Sepia*), 83, 13*P*
Chromophore carrier, visual purple molecule and weight of, 98, 397
Chronaxie, alpha and gamma curves of muscle and (*frog*), 73, 189
alpha substance of muscle and (*frog*), 74, 259
curare action on muscle (*frog*), 77, 354
on nerve-muscle (*frog*), 81, 113
daily variations in (*cat*), 62, 120
double motor innervation of adductor and (*crayfish*), 88, 79
hyperventilation effect on (*rabbit*), 96, 109
nerve-muscle stimulation and (*frog*), 70, 317
nerve stimulation rate and measurement of (*frog*), 82, 327
non-medullated nerve and electrode distance effect on (*invertebrate*), 84, 67
plain muscle and (*Holothuria*), 78, 382
retrograde polarization affecting (*frog*), 76, 261
single nerve-muscle preparation and (*frog*), 76, 100
skeletal muscle inexcitability and (*frog*), 70, 393
stimulation medium affecting (*frog*), 73, 219
tetany and (*cat*), 62, 115
'true' and 'false' (*frog*), 74, 438
Chylomicrograph, interpretation of normal (*man*), 95, 23*P*
technique of, 95, 21*P*
Chylomicrons. *See also* Blood particles
physical properties and nature of, 95, 7*P*
Cilia, movement of (*mammal*), 64, III

**Ciliary ganglion**, impulse transmission through (*mammal*), 89, 99
**Ciliary movement**, trachea and bronchi (*mammal*), 90, 247
**Circle of Willis**, blood pressure regulation and (*mammal*), 65, 210
**Circulation**, central control of (*mammal*), 65, 204
creatine and creatinine effect on (*Xenopus, mammal*), 92, 178
drugs action on (*man*), 65, xxii
liver 'reservoir' action in (*mammal*), 74, 44
model showing capacity and resistance factors in, 97, 429
rate. *See* **Circulation rate**
skin acidity with changes in (*cat*), 64, 399
temperature change affecting (*frog*), 75, 33
venous obstruction and collateral (*cat, frog*), 68, viii
**Circulation rate**, basal metabolic rate relation to (*man*), 85, 24*P*
ethyl iodide distribution and (*man*), 63, x
ethyl iodide method of measurement of (*women*), 62, 104; (*man*), 64, 39; 64, 107
exercise and measurement of (*man*), 66, 121
measurement by different methods of (*man*), 85, 3*P*
measurement errors in ethyl iodide method of (*man*), 63, 162
metabolic rate relation to (*man*), 66, 148
**Citrate**, blood coagulation and alkali reserve affected by (*cat*), 85, 168
blood coagulation and alkali reserve affected by decomposition products of (*cat*), 85, 173
blood coagulation time affected by intramuscular injection of (*cat*), 83, 49
heart affected by (*frog*), 66, 348
red blood cell permeability and (*rabbit*), 61, 114
skeletal muscle rhythmic discharges stimulated by (*frog*), 78, 279
**Citrulline**, urea formation in perfused liver from ammonia and (*rat*), 100, 453
**Cleidoic egg**, ketosis lacking in (*chick*), 77, 41*P*
**Climate**, leucocyte count affected by (*man*), 87, 336
**Clonic contractions**, hypersemia in tetanus and (*dog*), 85, 391
**Clupein**, oedema development in perfusion affected by (*frog*), 98, 124
**Cobra venom**, adrenal medulla affected by (*cat*), 99, 108
**Cobra venom**, histamine liberation from tissues by (*mammal*), 94, 187
inactivation by adsorption of (*mouse*), 94, 17*P*
lung histamine liberation by (*mammal*), 90, 273
lysocithin and muscle-stimulating substance formation by (*mammal*), 94, 232
lysocithin-like substance formation in tissues by (*mammal*), 94, 187
thrombokinase affected by, 98, 10*P*
**Cocaine**, nerve conduction from single end organ affected by (*frog*), 73, 390
paradox, analysis of (*mammal*), 71, 169
pressor substance antagonism to (*mammal*), 66, 423
skeletal muscle stretch response affected by (*frog*), 84, 6
**Cocarboxylase**, blood and content of (*bird, mammal*), 95, 57*P*
**Cochlea**, alternating current stimulation of (*man*), 89, 113
auditory nerve section effect on (*cat*), 83, 244
electrical response, frequency of stimulation and (*cat*), 81, 403
electrical stimulation of (*man*), 80, 3*P*
endolymph osmotic pressure in (*cat*), 98, 446
Hensen's cells' function in (*guinea-pig*), 73, 8*P*
microphonic action of, 71, xxviii
round window function in (*man, cat*), 99, 76
structure, electric response and frequency of stimulus relation to (*cat*), 81, 403
vitamin A deficiency effect on (*dog*), 94, 380
Wever and Bray effect in (*guinea-pig*), 73, 2*P*
**Cochlear artery**, Wever and Bray effect connection with (*cat*), 81, 401
**Cockroach**, cercal nerve action potentials with sound in, 87, 4*P*
**Cod liver oil**, vitamin A destruction by sunlight on, 61, xxxvi
**Cod muscle** fibrin preparation, 62, xiii
**Colchicine**, liver regeneration affected by (*rat*), 86, 63*P*
**Cold**, penetration rate into skin of (*man*), 69, 104
spleen, denervated, reaction to (*dog*), 87, 195
spots, depth of end-organs in (*man*), 69, 108
urinary changes following exposure to (*rat*), 97, 1

**Colloid osmotic pressure**, aqueous humour and plasma comparison of (*rabbit*), 62, 321
intra-ocular pressure and (*cat*), 64, 82
**Colon**, adrenaline and acetylcholine action with metabolic changes in (*cat*), 86, 425
anal canal stimulation effect on (*cat*), 78, 216
exteriorization of (*dog*), 68, 173
exteriorized, reactions of (*dog*), 76, 460
mucosa, exercise effect on circulation in (*dog*), 68, 185
vascular reactions in response to fright (*dog*), 68, 173
mucus secretion, investigation of (*mammal*), 65, xxii
nervous control of (*cat*), 77, 422
pitressin action on (*man*), 86, 8*P*
water absorption from (*rat*), 98, 487
*See also* **Large Intestine**
**Colorimeter lamp**, construction of, 62, xxxi
**Colour**, apparent advance and retreat of (*man*), 81, 14*P*
contrast, Weber's law and (*man*), 79, 121
match, high intensity adaptation affecting (*man*), 87, 23
matching, colour vision defects and mistakes in (*man*), 82, 172
light intensity effect in normal and abnormal colour vision on (*man*), 88, 184
vision defects, colour matching mistakes with (*man*), 82, 172
hue discrimination in normal and abnormal (*man*), 88, 176
yellow sensation and anomalous trichromatism in (*man*), 91, 36
**Comb**, maximum rate of growth of (*capon*), 93, 413
oestrogens prolonged dosage effect on (*fowl*), 95, 382
**Comb-growth**, hormone assay on (*capon*), 73, 136
**Commutator**, repetitive stimulation by condenser discharge and use of, 82, 423
**Compliance**, plain muscle tonus and (*dog*), 69, 397
**Concussion**, factors concerned in (*mammal*), 99, 153
**Condenser discharge**, commutator for repetitive stimulation by, 82, 423
**Conditioned reflex**, panting as (*dog*), 77, 334
**Conduction**, decrementless nature in narcotized nerve (*toad*), 64, 193
**Conduction rate**, auricle, alcohol action on (*tortoise*), 61, 294
giant axon and (*squid*), 98, 31
plain muscle action potential and (*Mytilus*), 90, 250
sympathetic nerve impulse and (*mammal*), 74, 118
**Conductivity**, non-irritable muscle and (*frog*), 65, 214
**Cone**, after effect and rod interaction with (*man*), 69, 53
response to monochromatic stimuli of (*frog*), 89, 248
**Congenital myotonia**, muscle reactions in (*goat*), 96, 11*P*
**Congo Red**, anaphylaxis inhibited by (*guinea-pig*), 75, 305
fibrin, ground preparation for enzyme testing, 81, 11*P*
**Connective tissue**, elasticity of (*mammal*), 96, 191
thermo-elastic properties of (*frog*), 74, 459
**Connective tissue cells**, sexual skin oedema and changes in (*monkey*), 94, 16
**Constant current**, plain muscle viscosity affected by (*Mytilus*), 88, 495
nerve accommodation and repetitive response to (*frog*), 88, 241
nerve with tetra-ethylammonium iodide affected by (*frog*), 91, 113
non-medullated nerve response to (*Maia*), 87, 169
sodium stimulation of muscle comparison with (*Mytilus*), 94, 4
**Contracture**, denervated muscle and mechanism of (*mammal*), 70, 113
**Convulsant drugs**, cerebral cortex action potentials affected by (*rabbit*), 81, 461
**Copper acetate**, ovulation produced by intraventricular injection of (*rabbit*), 100, 231
**Copulation**, hormone concentration necessary for ovulation following (*rabbit*), 74, 173
oestrin dosage required to produce (*mouse*), 69, 375
**Copulatory reflex**, vaginal anaesthesia effect on (*rabbit*), 70, 387
**Corbasil**, inactivation *in vivo* of (*man*), 98, 362
**Cornea**, light transmission through different regions of (*cat*), 98, 179
**Corneal reflex**, intra-ocular pressure changes in (*dog*), 71, 27
**Coronary arteries**, adrenaline and ergotoxin effect on (*mammal*), 61, xviii
blood distribution in (*H-L*), 67, 94

**Coronary arteries**, clamping in diastole and systole effect on flow through (*dog*, *H-L*), 79, 321
drugs action on (*mammal*), 64, 85
elasticity of (*H-L*), 73, 421
temperature effect on (*mammal*), 61, xviii; 64, 68
**Coronary blood pressure**, clamping effect in diastole and systole on (*dog*, *H-L*), 79, 327
**Coronary circulation**, adrenaline action on (*rabbit*), 61, 618; (*dog*, *H-L*), 68, 328
arterial clamping in diastole and systole effect on (*dog*, *H-L*), 79, 321
blood pressure effect on (*dog*), 65, 364
relation to (*dog*), 64, 343
cardiac and local vascular factors affecting (*dog*, *H-L*), 68, 324
carotid sinus reflex affecting (*dog*), 73, 51
distribution of (*H-L*), 67, 87
drugs action on (*dog*), 64, 187, 365
guanylic acid action on (*rabbit*), 74, 143
heart rate effect on (*H-L*), 67, 305
intrathoracic pressure and (*dog*), 63, 85
nucleic acid derivatives action on (*dog*), 79, 5*P*
pH effect on (*dog*), 61, 298
pulse pressure effect on (*H-L*), 73, 405
systole effect on (*mammal*), 74, 3
temperature effect on (*H-L*), 67, 301
Thebesian vessels and (*H-L*), 73, 36
**Coronary perfusion**, cannula for (*rabbit*), 65, xxiii
heart lung preparation and (*dog*), 65, 360
**Coronary sinus** blood flow, factors affecting (*H-L*), 67, 90
**Coronary vessels**, adenine compounds action on (*mammal*), 72, 297
adenosine action on (*rabbit*), 70, xxviii
electrocardiogram after ligature of certain (*dog*), 81, 70
lung oedema and changes in (*dog*), 61, 107
**Corpus luteum**, anterior pituitary extract action on (*rabbit*), 67, xxxii
extract, purification of, 76, 140
uterine reaction *in vivo* and *in vitro* with oestrin and (*rabbit*), 85, 148
uterus affected by (*rabbit*), 76, 137
gestation relation to (*reptile*), 80, 4*P*
gonadotropic hormone effect after hypophysectomy (*rabbit*), 90, 133
hypophysectomy effect on (*rabbit*), 67, 387
on development of (*rabbit*), 70, 38
in pregnancy on (*rabbit*), 90, 146
hysterectomy effect on development of (*ferret*), 78, 82
**Corpus luteum**, mammary gland development and (*goat*), 61, 608
oestrin maintenance after hypophysectomy (*rabbit*), 90, 435
oestrus-inhibiting action of (*cow*, *mice*), 64, 239
oestrus-producing extract from (*sow*), 61, 569
ovum unnecessary for production of (*mammal*), 81, 472
pregnancy maintenance and (*mouse*), 65, 341
pseudopregnancy prolonged by action of (*rabbit*), 79, 118
uterus after hypophysectomy affected by extracts of (*rabbit*), 84, 296
**Cortical motor activity**, spatial anomalies of (*man*), 85, 9*P*
**Cortical potential waves**, interpretation of (*rabbit*), 81, 440
**Cosine** relation of stimulating current and nerve (*frog*), 63, 370
**Coughing**, X-ray cinematography study of (*cat*), 92, 467
**Counter-irritation**, oesophageal contraction and (*man*), 65, 167
**Cow**, blood concentration and composition affected by venous compression, 82, 487
blood iron and phosphate affected by salivary secretion, 86, 39
corpus luteum extract and oestrus production, 61, 568
corpus luteum and oestrus inhibition, 64, 239
foetal and maternal blood gas tensions and oxygen capacity, 92, 283
lactation with stilboestrol, 100, 7*P*
oxytocic property of blood, 81, 63
**Cozymase**, depressor activity of (*rabbit*), 72, 76
**Crayfish**, central nervous system section effects, 67, 166
double motor innervation of adductor, 88, 78
excitation action currents and inhibition, 93, 178
motor nerve slow and twitch axons diameter, 88, 93
**Creatine**, circulation affected by (*Xenopus*, *mammal*), 92, 178
excretion, noxious agents effect on (*rat*), 97, 5
heart beat affected by (*Xenopus*), 90, 1*P*
metabolism, parathyroid influence on (*cat*), 75, 366
phosphate excretion affected by (*cat*), 71, 223

**Creatine**, skeletal muscle activity and (*frog*), 65, 17
affected by ingestion of (*cat*), 71, 220
and diffusion of (*frog*), 70, 294
sympathectomized muscle and (*dog*), 69, 386
tumours and content of (*mammal*), 75, 138
**Creatine phosphoric acid**, creatine and parathormone injection effect on (*cat*), 75, 371
iodoacetate poisoning and synthesis of (*frog*), 78, 295
parathyroidectomy effect on resynthesis of (*cat*), 79, 218
phosphagen relation to, 68, 194
tumour and presence of (*mouse*), 74, 197
**Creatinine**, body fluids equilibrium after injection of (*cat*), 95, 139
circulation affected by (*Xenopus, mammal*), 92, 178
clearance. *See* **Creatinine clearance**
excretion, basal metabolism relation with (*man*), 65, 247
exercise effect on (*man*), 62, 370
noxious agents effect on (*rat*), 97, 5
kidney uptake following intravenous injection of (*rabbit*), 79, 371
renal extraction ratio of (*rabbit*), 79, 368
urea effect on (*rabbit*), 79, 388
**Creatinine clearance**, cooling effect on (*P-L-K*), 89, 207
cyanide effect on (*P-L-K*), 74, 283
inulin clearance comparisons with (*dog, P-L-K*), 98, 97
plasma colloid relation to (*man*), 71, 337
renin action on (*rabbit*), 98, 323
Ringer diuresis effect on (*P-L-K, dog*), 98, 340
salt deficiency effect on (*man*), 91, 226
sucrose clearance relation to (*rabbit*), 80, 244
ureter, venous and arterial pressures effect on (*P-L-K*), 99, 135
xylose and urea clearances relation to (*P-L-K*), 84, 458
**Creatinuria**, post-encephalitic rigidity and (*man*), 62, VI
**Cremation**, factors affecting (*rabbit*), 70, 178
reversible nature of (*man*), 70, XLII
**Cricket**, cercal nerve alternating rhythms in, 87, 57*P*
**Crossed extension reflex**, action currents in muscles during (*cat*), 67, 141
drugs action on (*toad*), 97, 357
nerve block affecting (*cat*), 67, 40
spinal cord lesions effect on, 69, XXVII
**Crozier's patterns**, temperature effect on heart rate and (*frog*), 71, 151
**Crustacean muscle**, double type of response in, 73, 25
preparation, 67, XLIV
**Curare**, alpha substance nerve supply and action of (*frog*), 74, 256
catelectrotonus antagonism to (*frog*), 95, 286
gamma excitability identification and action of (*frog*), 75, 172
histamine release from muscle by (*dog*), 95, 149
intra-ocular pressure affected by (*dog*), 71, 26
motor end-plate potential affected by (*cat*), 97, 72
nerve affected by (*frog*), 79, 67
neuro-muscular isochronism and action of (*frog*), 81, 113
neuro-muscular junction abortive impulses effected by (*cat*), 100, 318
pseudo-chronaxie of muscle and (*frog*), 73, 233
quinine action on muscle with (*various*), 95, 47
respiratory centre affected by (*dog*), 100, 417
skeletal muscle action potentials affected by (*cat*), 94, 9*P*
skeletal muscle contracture on stimulation after (*frog*), 76, 70
splenic rhythm affected by (*cat*), 74, 305
tetanus toxin action on skeletal muscle affected by (*cat*), 96, 356
theory of action of (*frog*), 77, 337
**Curarine**, acetylcholine action on skeletal muscle affected by (*cat*), 87, 408
acetylcholine ahtagonism on muscle to (*cat*), 87, 425
acetylcholine production with stimulation of motor nerve to muscle paralysed by (*cat*), 86, 370
diaphragmatic spasm caused by (*cat*), 93, 40*P*
eserine antagonism in nerve-muscle preparation (*frog*), 93, 248
in skeletal muscle (*cat*), 93, 194
gastric secretion affected by (*cat*), 99, 3*P*
nerve action currents affected by (*frog*), 84, 104
nerve-muscle preparation affected by (*frog*), 82, 432
nerve-muscle response to stimulation affected by (*frog*), 93, 246
neuro-muscular conduction affected by small dose of (*cat*), 92, 23*P*
neuro-muscular transmission in ocular muscles affected by (*cat*), 99, 384

**Curarine**, prostigmin antagonism in muscle to (*cat*), 86, 1*P*
respiration affected by (*mammal*), 91, 437
skeletal muscle contraction and strength of stimulation affected by (*cat*), 84, 43*P*
vasomotor reflexes after total sympathectomy affected by (*cat*), 97, 279
**Cutaneous blood carbon dioxide**, high temperature effect on (*man*), 84, 287
**Cutaneous nerve**, action potentials in (*frog*), 67, 176
action potentials with varying skin stimuli (*cat*), 95, 1
antidromic sensory fibres in (*cat*), 85, 80
impulses, single preparation and (*frog*), 72, 377
measurement of impulses in (*cat*), 61, 66
severance, functional recovery after (*man*), 63, VIII
slow and fast impulses in (*frog*), 84, 250
triceps extensor reflex with stimulation of (*cat*), 81, 196
vasomotor reflexes and (*cat*), 65, 330
vibratory stimulus to skin effect on impulses in (*cat*), 97, 224
**Cutaneous nerve endings**, adaptation rate in (*frog*), 94, 170
injury sensitization of (*frog*), 88, 388
**Cutaneo-oesophageal reflexes** (*man*), 65, 165
**Cutaneous temperature**, sympathectomy effect on (*dog*), 69, 353
**Cyanide**, adrenaline oxidation by liver extract affected by (*rat*), 90, 7
auricle affected by iodoacetate with (*frog*), 89, 318
blood carbon dioxide output and uptake affected by, 80, 144
carbonic anhydrase affected by, 80, 134
gastric secretion affected by (*dog*), 75, 352
heart affected by (*frog*), 63, 25
kidney affected by (*P-L-K*), 74, 279
knee jerk affected by (*cat*), 88, 470
plain muscle affected by (*Mytilus*), 89, 54*P*
poisoning, aqueous humour/blood diffusion relationships affected by (*P-AL-Head*), 98, 146
**Cyanol**, excretion by kidney of (*rabbit*), 80, 253
**Cyanosis**, high altitude with ammonium chloride effect on (*man*), 78, 411
skin circulation rate during (*man*), 73, 344
**Cycling**. *See* **Bicycle pedalling**
**Cyclohexylalkylamines**, physiological actions of (*mammal*), 97, 453
**Cystine**, histamine and reactive hyperaemia substance actions affected by (*mammal*), 100, 154
**Cytidylic acid**, muscle extract depressor substances and (*mammal*), 76, 15*P*
**Cytochrome**, adrenaline inactivation by oxidase system of, 98, 136

**Dale and Evans comparator**, errors in, 61, XXVI
**Dale and Schuster double perfusion pump**, 64, 356
**Dark adaptation**, binocular summation in (*man*), 91, 427
dietary factors affecting (*man*), 96, 28*P*
fusion frequency affected by (*bird, mammal*), 85, 425
photometer, simple measurement of, 91, 20*P*
retina and optic nerve action potentials in (*frog*), 83, 373
retina staining reaction affected by (*rat, frog*), 84, 34*P*
retinal electrical responses and recognition of (*frog*), 89, 242
to monochromatic stimuli in (*frog*), 88, 436
to stimuli after (*frog*), 81, 3
visual purple concentration relation to retinal sensitivity in (*frog, cat*), 96, 31
visual purple regeneration in (*rat*), 71, 454
vitamin A deficiency and tests for (*man*), 100, 256
**Dark rhythm**, optic ganglion action potentials and (*Dytiscus*), 91, 71
**Dead space**, hyperventilation and water loss in (*mammal*), 77, 46
measurement in exercise (*man*), 65, 399
tidal air relation to (*man*), 64, XVIII
**Deafness**, vitamin A deficiency effecting (*dog*), 94, 380
**Death**, cochlear response disappearance after (*cat*), 81, 405
spleen changes in (*cat*), 64, 7
**Decapitate cat**, adrenaline action on glycogen distribution in, 73, 108
blood phosphate affected by, 76, 390
carbohydrate metabolism with $N_2O$ anaesthesia in, 80, 11
eviscerated, carbon dioxide removed from, 68, 265
evisceration effect on respiratory quotient of, 66, 403
fore-limb reflexes in 73, 4
liver and muscle glycogen affected by, 73, 82
liver glycogen recovery following, 76, 413

Decapitate cat, pilocarpine action on blood pressure of, 63, 43
Decarboxylase, specific action of *l*-dopa, 95, 50*P*
Decerebrate preparation, action currents from muscles in (*cat*), 67, 138
adrenaline action on glycogen distribution in (*cat*), 73, 108
blood pressure changes with over-ventilation in (*cat*), 70, 305
eviscerated, pituitrin on blood sugar in (*cat*), 64, 325
extensor reflexes of fore-limb and (*cat*), 65, 305
fore-limb reflexes with section level in (*cat*), 73, 8
oxygen poisoning in (*dog*), 94, 297
reflex inhibition of muscles in (*cat*), 64, 201
reflex relaxation in (*cat*), 63, 187
respiratory response to sensory and vagus nerve stimulation in (*dog*), 94, 508
skeletal muscle glycogen resynthesis in (*cat*), 74, 338
skeletal muscle responses to change in stimulation rate in (*cat*), 82, 97
skin acidity with temperature changes in (*cat*), 64, 393
stomach emptying time affected by fat in (*cat*), 84, 44
sugar absorption from stomach in (*cat*), 65, 381
supraspinatus tendon jerk in (*cat*), 63, 70
vasomotor reflexes in (*cat*), 65, 327
Decerebrate rigidity, apnoeusis comparison with (*cat*), 93, 15
carbon dioxide effect on, 69, IX
cerebellar electrical activity and (*cat*), 94, 77
spinal inhibitory influence on (*cat*), 76, 3*P*
supra-vestibular connections and (*cat*), 64, 303
Decerebration, blood sugar affected by (*rat*), 78, 198
carbohydrate metabolism with $N_2O$ anaesthesia in (*cat*), 80, 13
clamp, 69, XX
hack-saw method of (*mammal*), 61, XIX
hyperglycaemia, atropine and ergotamine action on liver glycogen in (*rabbit*), 80, 296
splanchnotomy and phlorrhizin action on (*rabbit*), 80, 323
liver and muscle glycogen affected by (*cat*), 73, 89
spontaneous polyuria occurring after (*dog*), 98, 193
Decerebration, total sympathectomy effect on vasomotor reflexes after (*cat*), 97, 276
water diuresis after (*dog*), 68, 39, 305
Deciduomata, anterior pituitary extract stimulating (*rat*), 67, XXXIV
Decremental conduction, giant axon and (*squid*), 98, 34
Defaecation, mechanism of (*cat*), 78, 208
Defibrinated blood, heart affected by (*H-AL*), 79, 205
liver glycogen recovery affected by (*cat*), 76, 431
lung oedema caused by (*dog*), 61, 105
Defibrination, blood cell fragility in hypotonic plasma affected by, 83, 37
Defiation reflex, ventilation rate in (*dog*), 94, 499
Dehydration, blood and tissues water loss in (*man*), 84, 428
pituitary response to (*rat*), 90, 113
Delayed anaerobic heat, critical assessment of, 70, 96
skeletal muscle and (*frog*), 62, 203
indirect stimulation and (*frog*), 67, 374
twitch and (*frog*), 74, 221
Delayed heat production, nerve and (*frog*), 62, 356
skeletal muscle and analysis of (*frog*), 75, 273
twitch anaerobic and aerobic (*frog*), 82, 514
Denervated muscle. *See* Skeletal muscle, denervated
Densitometer, $HbO_2$ and HbCo mixture measurement by, 64, 408
Dental nerve, vitamin A deficiency effect on (*rat*), 93, 206
Dental nerve section, tooth development affected by (*mammal*), 88, 65
Dentine, calcium distribution in (*man*), 90, 406
magnesium deficiency effect on histological appearance of (*rat*), 99, 9
nerve fibres in the odontogenetic layer of, 93, 23*P*
vitamin D effect on calcium content of (*dog*), 84, 272
Depancreatization. *See* Pancreatectomy
Depolarization, muscle rhythmic discharges and (*frog*), 78, 278
Depressor mechanisms, function of, 82, 4*P*
Depressor nerve, afferent discharges and their source (*cat*), 87, 78*P*
blood pressure regulation by (*mammal*), 70, 224

**Depressor reflex**, adrenaline effect on cardio-inhibitory centre and (*dog*), 77, 75
carotid sinus very low pressure and (*dog*), 73, 45
characteristics of (*mammal*), 66, 387
chloralose action on (*cat*), 65, 450
development with age and asphyxia effect on (*rabbit*), 95, 188
ergotamine action on (*cat*), 69, 340
spleen volume and (*cat*), 62, 296
urethane effect on (*rabbit*), 64, 320
**Depressor shock**, occurrence of (*cat*), 78, 32*P*
**Depressor substance**, brain extract and, 76, 487
intestine extracts and (*mammal*), 83, 1
saliva and pancreatic juice containing (*mammal*), 86, 95
seminal plasma and occurrence of (*man*), 84, 209
sympathetic salivary secretion and production of (*cat*), 85, 17
tissue extracts and nature of (*horse*), 72, 74
vesicular gland and occurrence of (*monkey*), 84, 21*P*
**Desiodothyroxine**, tadpoles and action of, 64, 252
**Desoxycorticosterone**, progesterone activity of (*mammal*), 96, 21*P*
**Detonator action**, sympathetic ganglion and (*cat*), 91, 5
**Detonator response**, facilitation and synaptic delay in sympathetic ganglion relation to (*cat*), 91, 15
ventral nerve root electrotonus and (*cat*), 92, 297
**Deuterium**, liver fat source indicated by (*mouse*), 93, 387
micro-density method for measurement of, 93, 367
**Dextrin-maltose**, liver glycogen formation from (*cat*), 76, 429
**Diabetes insipidus**, hypophysectomy effect on (*rat, cat*), 91, 202
pituitrin action on blood sugar in (*man*), 62, II
**Diabetes mellitus**, anterior pituitary extract production of permanent (*dog*), 92, 15*P*
choline action on liver fat in (*dog*), 79, 94
glucose maximum utilization rate and (*dog*), 87, 318
lecithine action in (*dog*), 75, 49
pituitrin effect on blood sugar in (*man*), 62, III
**Diabetic coma**, renal disorganization in (*man*), 95, 36
**Diabetic glycosuria**, choline effect on (*dog*), 85, 8*P*
**Diabetic heart**, insulin action on respiratory exchanges of (*H-L*), 81, 153
respiratory quotient of, 79, 2*P*
**Diabetogenic hormone**, growth affected by (*mammal*), 100, 19*P*
insulin content of pancreas affected by (*dog*), 97, 200
**Diacetyl thyroxine**, oxygen consumption affected by (*rat*), 68, 398
**Dial anaesthesia**, blood sugar and liver glycogen affected by (*cat*), 76, 399
central nervous system operations under (*mammal*), 70, XXIII
cerebral cortical activity with sense organ stimulation affected by (*mammal*), 100, 179
extensor tone demonstration in (*cat*), 81, 19*P*
eye and nictitating membrane in (*cat*), 83, 29*P*
motor cortex and pyramidal tract activity under (*mammal*), 97, 157
**Diaphragm**, afferent nerve pathways from (*cat*), 94, 2*P*
cursarine causing spasm of (*cat*), 93, 40*P*
cursarine poisoning and action on (*mammal*), 91, 439
graded action of (*rabbit*), 66, 92
graded stimulation of (*cat*), 63, II
registration of movements of, 94, 227
strychnine action on movements of (*rabbit*), 78, 88
tone, phrenic nerve block and (*cat*), 61, 355
**Diastase**, glucose inhibition of, 75, 10*P*
**Diastole**, coronary blood flow affected by clamping artery in (*dog, H-L*), 79, 325
coronary pressure relation to (*H-L*), 73, 411
**Diastolic filling**, oxygen consumption and work of auricle affected by (*frog*), 68, 417
refractory period affected by (*frog*), 68, 441
relation to (*mammal*), 76, 219
**Diastolic pressure**, coronary blood flow relation to (*dog*), 64, 343; (*H-L*), 73, 412
**Diastolic volume**, insulin effect on (*dog*), 62, 345
oxygen consumption of heart and (*dog*), 62, 251; 63, 302; (*frog*), 66, 188
ventricle energy expenditure at constant (*tortoise*), 91, 23
work of heart and (*tortoise*), 65, 148
work and oxygen consumption of ventricle with (*tortoise*), 72, 259

**Diathermy**, blood volume affected by (*rabbit*), 73, 381
**Diet**, adrenalectomy survival time influenced by (*rat*), 86, 232
adrenaline content of adrenal glands affected by (*rat*), 80, 305
diabetic action of anterior pituitary extract affected by (*dog*), 92, 14*P*
exercise effect on protein metabolism affected by (*man*), 75, 78
glycogen deposition in adipose tissue affected by (*mammal*), 100, 391
glycogen store stability affected by (*rat*), 92, 48
insulin content of pancreas affected by (*rat*), 97, 113
ketonaemia in pregnancy affected by (*sheep*), 94, 346
oxygen want resistance affected by (*rat*), 95, 1*P*
**Differential blood gas tonometry**, method of, 62, 380
**Differential threshold**, adaptation to light of different intensities and (*man*), 92, 406
**Diffraction method**, red blood cell diameter and (*mammal*), 66, 37
**Diffractometer**, red blood cell volume measurement by, 73, 289
**Diffusion constant**, phosphate in muscle and (*frog*), 66, 24
**Digestion**, exercise effect on (*rat*), 72, 1*P*
**Digital nerves**, extensor reflexes of forelimb and (*cat*), 65, 310
**Digitalis**, tonic action on heart of (*dog*), 64, 269
**Dihydroxyacetone**, insulin hypoglycaemia relieved by (*mammal*), 61, xxxv
intestine permeability to (*rabbit*), 69, 204
respiratory quotient of (*man*), 63, 315
**Diiodothyronine**, oxygen consumption affected by (*rat*), 68, 400
**Diiodothyroxine**, tadpoles and action of, 64, 252
**Dilodotyrosine**, tadpoles and action of, 64, 253
metamorphosis effected by, 73, 216
**Dinitrophenol**, ketosis after pancreatectomy affected by (*dog*), 97, 401
**Dioestrus**, temperature effect on (*mice*), 64, 390
**Diphasic electrical response**, monophasic relation to, 81, 1*P*
**Diphenylethylamine**, physiological actions of (*mammal*), 98, 424
**Diphtheria toxin**, carbohydrate metabolism affected by (*rabbit*), 75, 381
**Diphtheria toxin**, liver glycogen formation inhibited by (*rabbit*), 82, 403
**Disazo dyes**, blood clotting properties of (*rabbit*), 80, 33
**Discrimination**, adaptation in vision relation to (*man*), 83, 474
**Diuresis**, adrenaline action on (*H-L-K*), 73, 151
caffeine and pressure compared (*H-L-K*), 69, 157
decerebrate preparation and (*dog*), 68, 39
decerebration and hypophysectomy effect on (*dog*), 68, 305
glucose infusion rate relation to (*dog*), 87, 318
hypophysectomy effect on (*cat*), 81, 172
intrarenal pressure affected by (*H-L-K*), 78, 9*P*
phlorrhizin glycosuria affected by (*dog*), 69, 421
phosphate excretion during (*man*), 61, 1
renin action on (*rabbit*), 98, 318
salt insturation effect on post-pituitary extract (*dog*), 87, 132
temperature effect on (*P-L-K*), 89, 200
**Diuretic excretion**, diffusion process compared with (*rabbit*), 61, 595
renal osmotic work and efficiency with (*P-L-K*), 97, 363
**Diurnal variation**, urine surface tension and (*man*), 85, 139
**D : N ratio**, perfused liver and (*mammal*), 61, 512
phlorrhizin effect after hypophysectomy on (*dog*), 77, 87
**Dogfish**, ampullae spontaneous discharge, 86, 43*P*
branchial vessels and blood pressure receptors, 84, 187
nerve-heart preparation, 69, 34
skeletal muscle heat-tension relation, 62, 156
spinal reflexes, unisegmental, 82, 179
**Donnan equilibrium**, potassium in muscle and (*frog*), 100, 8
**Dorsal column**, antidromic peripheral fibres from (*cat*), 85, 79
**Dorsal nerve roots**, antidromic impulses in (*cat*), 85, 77
efferent fibres in (*cat*), 83, 5*P*
impulses passing from spinal cord in (*cat*), 81, 29*P*
potential changes in (*frog, cat*), 92, 279
potentials, conduction direction of (*frog*), 100, 294

**Dorsal nerve roots**, potentials, dorsal root reflexes relation to (*cat*), 94, 27*P*
hypothesis of origin of, 92, 310
latency of (*frog*), 100, 285
properties of (*frog*), 95, 41*P*
temperature effect on (*frog*), 96, 225
'recurrent' fibres in (*cat*), 85, 104
**reflexes**, body temperature and (*cat*), 94, 36*P*
**Doryl**, knee jerk affected by (*cat*), 89, 389
strychnine convulsions depressed by (*cat*), 90, 312
**Double refraction**, muscle potential difference variations with (*frog*), 90, 37*P*
**Drake**, adrenal cortical hormone assay, 89, 64
adrenal cortical extract and testis weight, 91, 18*P*
**Drop recorder**, 65, VI
A.C. mains type, 84, 57*P*
modification of Condon's, 84, 63*P*
universal mains, 87, 20*P*
**Drug antagonists**, quantitative effects of, 89, 7*P*
**Dry atmosphere**, installation for producing, 89, 20*P*
**Du Bois-Reymond**, nerve chemical transmission and, 91, 4*P*
**Duck**, atropine actions on, 93, 56*P*
**Ductus arteriosus**, closing time of (*sheep*), 93, 36*P*
vagus nerve relation to (*guinea-pig*), 92, 1*P*
**Duodenal-pyloric reflex**, splanchnotomy effect on (*dog*), 84, 238
**Duodenal regurgitation**, evidence against (*man*), 81, 16*P*
function of (*cat*), 87, 380
gastric acidity regulation and (*man*), 70, 166
**Duodenal secretion**, nature of (*cat*), 87, 382
**Duodenum**, acidity of contents during stomach emptying (*cat*), 87, 380
afferent nerve fibres from (*cat*), 85, 4*P*; 89, 413
afferent neurone segmental distribution (*cat*), 93, 112
gastric acidity control from (*man*), 87, 34
regulation by regurgitation from (*cat*), 87, 380
gastric secretion affected by extract of (*cat*), 69, 48
glucose absorption in (*rabbit*), 73, 172
glucose concentration effect on diffusion through (*rabbit*), 69, 199
pancreatic secretion affected by presence of food in (*cat*), 99, 426
**Duodenum**, parasympathetic action on (*Amphibia*), 75, 102
pressure effect on contractions of (*mammal*), 66, 69
reflexes on stomach from (*cat*), 84, 4*P*
temperature effect on contraction of (*rat*), 63, 32
vasomotor reflexes with distension of (*man*), 95, 276
**Duodenum-nerve preparation**, inhibition in (*rabbit*), 70, 145
**Duplicity theory**, retinal response in different species and (*bird*, *mammal*), 85, 436
**Dye purification**, anti-coagulant property and (*rabbit*), 80, 85
**Dyestuffs**, renal extraction ratios of (*rabbit*), 72, 201
**Dyspnoea**, mouthpiece for use in (*man*), 78, 5*P*
*Dytiscus*, central excitatory state and action potentials, 72, 145
optic ganglion discharges, 75, 26*P*; 91, 66
respiratory rhythm and potential changes, 72, 135

**Ear**, alternating current stimulation and 'frequency doubling' (*man*), 90, 3*P*
impulses arising in (*frog*), 84, 14*P*
phase change effect on (*man*), 86, 64*P*
skin vessels innervation of (*dog*), 87, 260
sound effect on (*reptile*), 92, 9*P*
transient response in primitive (*tortoise*), 96, 18*P*
**Ear blood vessels**, innervation of (*rabbit*), 61, 518
systolic pressure affected by changes in calibre of (*rabbit*), 81, 266
**Earthworm**, giant nerve fibre impulses, 77, 23*P*
**'Economy' of contraction**, plain muscle and (*snail*), 69, 451
**Eel**, branchial circulation anatomy, 76, 369
gill chloride-secreting cells, 76, 368
gill respiration and osmotic effect of perfusing fluid, 77, 277
gills secretory activity, 75, 226
optic nerve discharges, 62, XXIII; 63, 383; 65, 275
fibre arrangement, 63, 411
reaction time with light, 64, 285
retina adaptation, 65, 293
retinal reaction time, 64, 281
**Efficiency**, duration of work effect on (*man*), 80, 394
speed and load effect in bicycling on (*man*), 72, 429

Egg albumin, hydration, measurement of, 72, 2*P*
osmotic pressure of, 66, v
renal excretion of (*mammal*, *P.L.K*), 77, 392
Egg formation, blood calcium relation to (*chicken*), 70, iv
Egg incubation, air space changes during (*hen*), 94, 365
Eighth nerve, action potentials in (*frog*), 84, 14*P*
vitamin A deficiency effect on (*dog*), 94, 384
Elasticity, plain muscle tonus and (*dog*), 69, 396
Elasticity coefficient, muscle contraction and (*frog*), 61, 73
Electric organ, cholinergic nerve supply to (*Torpedo*), 97, 3*P*
Electrocardiogram, calcium and potassium effects on (*man*), 89, 153
cathode ray oscillograph and form of (*man*), 81, 3*P*
recording of (*man*), 78, 21*P*; 80, 17*P*
coronary vessel ligature effect on (*dog*), 81, 70
time relations of (*guinea-pig*), 92, 289
Electrode distance, nerve excitability with electrotonus affected by (*frog*), 89, 41
nerve resistance relation to (*frog*), 82, 341
non-medullated nerve chronaxie affected by (*invertebrate*), 84, 67
plain muscle action potential and (*Mytilus*), 90, 243
Electrode position, strength-duration curve of non-medullated nerve affected by (*Sepia*), 83, 432
Electrode size, chronaxie in slow muscle and (*turtle*), 78, 393
isochronism theory and (*frog*), 81, 115
pseudo-chronaxie and (*frog*), 76, 264
Electrodes, electrolytic phenomena in, 86, 25*P*
Electrodialysis, base determination on micro scale by, 81, 162
histamine extraction from tissues by, 77, 33*P*
Electrometer, sensory nerve impulse measurement by (*mammal*), 61, 52
Electromyogram, adrenaline action in decerebrate rigidity on (*cat*), 87, 93*P*
analysis of (*frog*), 64, 174
central nervous stimulation and (*cat*), 61, 81
neuro-muscular contracture and (*frog*), 76, 82
Electromyogram, spinal cord narcosis and change in (*cat*), 61, 87
Electrophoresis apparatus, 78, 8*P*
Electrophoretic speed, red blood cell and factors influencing (*mammal*), 95, 96
Electrotonic potentials, nerve excitability time curve comparison with (*frog*), 90, 212
Electrotonus, development and spread in nerve of (*frog*), 82, 353
giant axon block and (*squid*), 98, 34
high frequency stimulation on nerve and (*frog*), 83, 410
nerve excitability affected by (*frog*), 89, 32; 90, 199
nerve high frequency stimulation and, 83, 14*P*
plain muscle and (*Mytilus*), 90, 421
strength-frequency relation in nerve for constant A.C. (*frog*), 86, 4*P*
sympathetic ganglion N and P potential waves and (*cat*), 85, 493
ventral nerve root and (*frog*, *cat*), 92, 287; (*frog*, *mammal*), 87, 26*P*
Embryo, acetylcholine action on aneural heart of (*chick*), 86, 53*P*
blood pressure in (*chick*), 62, xxvii
blood sugar control in (*chick*), 72, 411
choline esterase in muscle of (*chick*), 95, 30
growth, ketosis lacking in (*chick*), 77, 41*P*
haemoglobin change with growth of (*chick*), 83, 223
heart innervation and acetylcholine action in (*Fundulus*), 84, 20
metabolism of different foodstuffs by (*chick*), 61, xxxiii
movements in mid-foetal life of (*sheep*), 91, 329
somatic behaviour genesis in (*mammal*), 87, 31*P*
somatic movement genesis in (*sheep*), 87, 73
weight, uterine blood content relation to (*rabbit*), 76, 456
Embryonic extracts, sex organs affected by (*mammal*), 97, 495
Emotion, heart rate after sympathectomy affected by (*dog*), 95, 457
intestinal movements affected by (*dog*), 67, 219
spleen, denervated, reaction to (*dog*), 87, 192
spleen size affected by (*dog*), 68, 375
Emotional response, cortico-hypothalamic tracts and (*cat*), 67, xxvii
Emulsification, fat absorption and (*cat*), 64, xxxiii

**Emulsion**, fat digestion with fine state of, 78, 467
protein protection of oil-in-water, 95, 5*P*
**Enamel**, calcium distribution in tooth (*man*), 90, 403
magnesium deficiency effect on histological appearance of (*rat*), 99, 10
permeability, age effect on (*dog*), 72, 331
**Endocrine glands**, feeding and exhaustion effect on (*rat*), 85, 162
pineal gland removal effect on (*rat*), 81, 59
**Endolymph**, osmotic pressure of (*cat*), 98, 446
**End-organ**. *See* **Sensory end-organ**
**Endothelial cells**, diffusion of substances through (*dog*), 61, II
**Enzymic synthesis**, class demonstration of, 66, XV
**Eosinophils**, histamine content of (*mammal*), 90, 495
**Ephedrine**, adrenaline and adrenergic nerve potentiation by (*frog, mammal*), 94, 87
adrenaline effect on vaso-constrictor action of (*cat*), 98, 277
adrenaline inhibition of intestine after (*rabbit*), 70, 148
amine oxidase action on adrenaline affected by, 97, 268
amine oxidase affected by, 93, 7*P*
apnoea, mechanism of (*cat*), 69, 497
blood sugar affected by (*mammal*), 68, 247
cocaine action on tissues with (*mammal*), 71, 169
denervated nictitating membrane response to (*cat*), 91, 465
denervated pupil affected by (*cat*), 68, 255
exophthalmos produced by (*mammal*), 84, 336
prostigmine potentiation in myasthenia gravis by (*man*), 98, 4*P*
spleen size affected by (*dog*), 68, 378
tissue gas tensions affected by (*rabbit*), 75, 23*P*
**Ephetonine**, blood sugar affected by (*rabbit*), 68, 251
**Epicardium**, vagal reflex origin in, 90, 60*P*
**Epidermis**, nerves of (*man*), 75, 25*P*
tactile nerve endings in (*man*), 77, 251
ultra-violet radiation absorption by sweat and (*man*), 93, 345
**Epilepsy**, choline-like substances effect on (*man*), 99, 8*P*
**Epinine**, inactivation *in vivo* of (*man*), 98, 364
**Erect posture**, cerebro-spinal fluid pressure in (*man*), 91, 188
**Ergometrine**, vagina action potentials following (*rabbit*), 97, 140
**Ergot**, antirachitic action of (*dog*), 65, XXIX
**Ergotamine**, adrenaline action on blood lactate affected by (*mammal*), 78, 96
adrenaline action on uterus and (*rabbit*), 61, 144
adrenaline and insulin action on carbohydrate metabolism affected by (*rabbit*), 79, 295
adrenaline reversal affected by (*mammal*), 62, 58
histamine action on blood pressure after (*cat*), 61, 206
isolated artery and action of adrenaline after (*mammal*), 64, 72
liver glycogen after decerebration affected by (*rabbit*), 80, 300
pituitrin hyperglycaemia and action of (*rabbit*), 62, VIII
vaso-motor reflexes affected by (*cat*), 69, 331
**Ergotoxine**, acetylcholine protection by, 70, 345
adrenaline action on blood vessels with (*dog*), 71, 188
on knee jerk affected by (*cat*), 88, 487
adrenaline central depressor action affected by (*rabbit*), 92, 120
alimentary hyperglycaemia and glucose absorption affected by (*mammal*), 80, 49
arteries affected by (*mammal*), 61, XVIII
bronchoconstriction by acetylcholine suppressed by (*guinea-pig*), 96, 29*P*
ergotamine effects compared with (*cat*), 69, 342
iodoacetate hyperglycaemia affected by (*rabbit*), 80, 362
morphothebaine-dimethyl ether comparison with (*mammal*), 100, 76
Orbeli phenomenon affected by (*frog*), 78, 181
phlorrhizin glycosuria and action of (*rat*), 65, 456
portal circulation affected by adrenaline after (*P-AL-Li*), 74, 360
Sherrington phenomenon with sympathetic stimulation affected by (*mammal*), 86, 70
stomach contractions with sympathetic nerve stimulation after (*cat*), 71, 197
sympathetic vaso-dilators to muscle affected by (*dog*), 83, 490
uterine reaction in pregnancy to (*man*), 79, 85
**Erythema**, sweat protection from (*man*), 93, 340

**Eserine**, acetylcholine action on knee jerk affected by (*cat*), 89, 187
acetylcholine action on plain muscle affected by (*frog*), 96, 371
appearance in cerebrospinal fluid with (*dog*), 86, 278
destruction by blood in presence of (*horse*), 70, 240
liberation from stomach with (*dog*), 81, 334
adrenaline action on uterus modified by (*guinea-pig*), 98, 492
adrenaline discharge affected by (*cat*), 81, 296
avertin and urethane anaesthesia action on muscle response to (*mammal*), 90, 84*P*
barium sensitization of muscle to (*leech*), 80, 21*P*
bronchoconstriction with acetylcholine potentiated by (*guinea-pig*), 96, 53*P*
bronchomotor response to sympathetic stimulation affected by (*guinea-pig*), 99, 60
cerebral cortex affected by (*cat*), 91, 215
curarine antagonism in nerve-muscle preparation to (*frog*), 93, 248
in skeletal muscle to (*cat*), 93, 194
denervated ganglion affected by acetylcholine and (*cat*), 91, 389
denervated muscle response to acetylcholine affected by (*cat*), 89, 446
and to tetramethylammonium iodide with (*mammal*), 70, 134
facilitation in sympathetic ganglion affected by (*cat*), 85, 221
ganglion action potentials affected by, 81, 9*P*
knee jerk affected by (*cat*), 89, 168
motor response to stimulation of cerebral cortex affected by (*cat*), 99, 321
nerve-muscle response to stimulation affected by (*frog*), 93, 230
nictitating membrane response to sympathetic stimulation affected by (*cat*), 89, 298
ocular neuro-muscular response to (*cat*), 99, 387
optimum stimulation rates to red and white muscle affected by (*cat*), 90, 10*P*
pseudomotor contracture of lip affected by (*dog*), 73, 57
quinine action on muscle with (*various*), 95, 55
salivary secretion depressor substances on nerve stimulation affected by (*cat*), 85, 28
**Eserine**, Sherrington phenomenon with sympathetic stimulation potentiated by (*mammal*), 86, 64
skeletal muscle action potentials following stimulation and (*cat*), 89, 227
affected by (*cat*), 95, 36*P*
contraction affected by substitutes for (*mammal*), 89, 52
response to stimulation affected by (*fowl*), 94, 107
responses affected by (*cat*), 87, 410
spinal cord activity affected by (*dog*), 100, 345
strychnine convulsions affected by (*cat*), 90, 324
sympathetic action on salivary gland with (*cat*), 86, 23
sympathetic ganglion affected by, 81, 39*P*; (*cat*), 83, 112
paralysis by acetylcholine produced with (*cat*), 88, 263
sympathetic salivary secretion potentiated by (*cat*), 82, 295
sympathetic vaso-dilators to muscle affected by (*dog*), 83, 488
tetanus toxin affecting action on skeletal muscle of (*cat*), 96, 358
urea action on small intestine with (*rabbit*), 93, 32*P*
uterine production of acetylcholine on sympathetic stimulation with (*dog*), 85, 300
vagal inhibitory action on heart affected by (*cat*), 82, 224
**Eserine-like compounds**, nerve-muscle response to stimulation affected by (*frog*), 93, 240
**Eserine methiode**, central nervous action compared with that of eserine sulphate (*cat*), 96, 309
**Eseroline**, spinal cord activity affected by (*cat*), 96, 305
**Esophoria**, normal distribution of (*man*), 65, x
**Esterification**, muscle extract and (*rabbit*), 65, 118
**Ether**, adrenaline action affected by (*cat*), 67, 350; 81, 27*P*
adrenaline effect on blood pressure after (*cat*), 63, 152
aqueous humour-plasma osmotic pressure relationship disturbed by (*dog*), 92, 358
blood cholesterol affected by (*rabbit*), 77, 98
blood composition affected by (*rabbit*), 64, xi
blood gases affected by (*rabbit*), 64, xxiv

**Ether**, cerebral action potentials with chloroform and (*rabbit*), 81, 445
chronaxie affected by (*cat*), 62, 120
liver glycogen affected by (*cat*), 73, 77
nerve conduction from single end-organ affected by (*frog*), 73, 389
retinal action potentials affected by (*cat*), 77, 213
subarachnoid absorption rate affected by (*dog*), 99, 487
sympathetic system affected by (*cat*), 77, 30*P*; 78, 257
**Ethyl alcohol.** *See* Alcohol
**Ethyl iodide**, circulation rate measurement by (*man*), 64, 39, 107
method of circulation rate measurement (*women*), 62, 104
partition coefficient and destruction of (*man*), 63, x
partition coefficient, measurement of (*cat, goat*), 64, 116
**Ethylene anaesthesia**, blood sugar during (*rabbit*), 64, xix
**Ethylene glycol**, blood cell solvent water measurement by (*mammal*), 86, 149
***Eusepia***, brain ganglion cholinesterase, 89, 369
**Evans blue**, blood volume micro measurement with photocell and (*mammal*), 93, 277
**Eviscerate preparation**, adrenaline action on carbohydrate balance in (*cat*), 70, 67
respiratory quotient of (*cat*), 70, 86
with blood changes in (*cat*), 71, 396
synthalin on blood sugar in (*cat*), 65, 91
**Evisceration**, recovery rate from exercise after (*dog*), 70, 286
respiratory quotient affected by (*cat*), 66, 403; 79, 508
**Excitation**, bent nerve and (*frog*), 65, 173
theory of, 84, 42*P*
**Excitation time**, chronaxie and (*frog*), 74, 438
curare action on muscle (*frog*), 77, 354
**Excitatory disturbance**, electrical stimulation and evolution of (*frog*), 90, 75*P*
**Exercise**, adrenal medulla and (*rat*), 61, iii
blood clotting time affected by (*dog*), 82, 113
blood lactate affected by gentle (*man*), 79, 447
blood osmotic pressure following (*man*), 70, 429
blood oxygen capacity affected by (*man*), 67, 62
blood phosphate changes in (*man*), 61, 37
**Exercise**, blood pressure reflex rise from muscles in (*man*), 89, 380
blood sugar after sympathectomy affected by (*dog*), 95, 431
carbon dioxide breathing affect on (*man*), 61, x
chloride excretion affected by (*man*), 90, 90*P*
chloride movement during (*man*), 63, x
circulation rate during (*man*), 64, 121
circulatory adjustments in (*man*), 66, 136
circulatory changes during (*man*), 66, 330
colonic mucosa circulation affected by (*dog*), 68, 185
digestion affected by (*rat*), 72, 1*P*
'economy' of contraction in plain muscle after (*snail*), 69, 452
efficiency with duration of (*man*), 80, 394
with speed of bicycling (*man*), 67, 245; 72, 433
endocrine glands weight affected by (*rat*), 85, 165
energy expenditure in air and water of (*man*), 84, 31*P*
in running and walking (*man*), 81, 255
fuel supply effect on capacity for (*dog*), 77, 55
gastric secretion affected by (*cat*), 99, 3*P*
glycogen stores after different diets affected by (*rat*), 92, 51
heart rate after sympathectomy affected by (*dog*), 87, 345
control in (*dog*), 83, 313
high altitude effect on respiratory exchanges during (*man*), 71, 57
with ammonium chloride effect on (*man*), 78, 411
histamine production in muscle with (*dog*), 85, 413
insulin action affected by (*man*), 93, 151
intestinal movements affected by (*dog*), 67, 219
ketosis after pancreatectomy affected by (*dog*), 97, 393
lactic acid in muscle and blood during and after (*dog*), 70, 277
leucocyte count affected by (*man*), 75, 116
limiting factors in (*man*), 62, xiv
metabolism affected by prolonged (*man*), 93, 144
mild, lactic acid changes with (*man*), 69, 214
nitrogenous excretion following (*man*), 62, 370
oxygen pressure affecting respiratory exchange in (*man*), 62, xv
phosphate changes in blood in (*man*), 69, 225

**Exercise**, physiological changes in several subjects to the same degree of (*man*), 69, 267
protein diet effect on performance and efficiency of (*man*), 82, 189
protein metabolism affected by (*man*), 75, 67; 82, 184
pulse rate measurement by electrocardiogram during (*man*), 93, 36*P*
reflex rise from muscles in (*man*), 92, 167
recovery period following strenuous (*man*), 89, 462
respiratory changes during (*man*), 66, 330
respiratory quotient in (*man*), 66, 168
speed of movement and factors limiting (*man*), 83, 40*P*
spleen, denervated, reaction to (*dog*), 87, 193
spleen size affected by (*dog*), 68, 185
spleen volume during pregnancy with (*dog*), 66, 34
steady state attainment in (*man*), 66, 162
sweating during (*man*), 67, x
sympathectomy effect on heart rate response to (*dog*), 95, 454
temperature effect on capacity for (*dog*), 77, 51
temperature changes with (*bat*), 82, 461
and blood flow in muscles during (*man*), 97, 25
thyroxine calorigenic action affected by (*dog*), 74, 376
training effects in (*man*), 66, 136
urinary changes following (*rat*), 97, 1
urine phosphate changes in (*man*), 61, 37
ventilation rate with carbon dioxide excess and with (*man*), 72, 179
**Exophoria**, normal distribution of (*man*), 65, x
**Exophthalmos**, acetylcholine production of (*dog*), 97, 383
adrenaline action and (*dog*), 71, 9
plain muscle distribution in periorbita and relation to (*man*), 87, 63*P*
mechanism in (*mammal*), 87, 60*P*
pupil dilatation relation to (*cat*), 84, 49*P*
sympathomimetic drugs producing (*mammal*), 84, 334
**Expiration**, alveolar air composition affected by depth of (*man*), 98, 75
physiology of sudden (*man*), 100, 15*P*
respiratory cycle affected by resistance to (*dog*), 80, 272
vagus afferent impulses in (*cat*), 79, 343
**Expiratory muscles**, action currents in, 71, vii
**Expired air**, carbon dioxide variations in (*man*), 64, xvii
nomogram of, 66, 133
serial sampling of (*man*), 65, 391
**Extensometer**, muscle viscosity measurement by (*frog*), 69, 483
**Extensor reflexes**, crossed, interaction of (*cat*), 67, 97
fore-limb (*cat*), 65, 305
motor nerve impulse frequency in (*cat*), 67, 125
**Extensor tone**, dial anaesthesia effect on (*cat*), 81, 19*P*
reflex relaxation and (*cat*), 63, 197
**Extinction**, motor cortex and pyramidal tract activity showing (*mammal*), 97, 192
**Extracellular fluid**, salt deficiency effect on volume of (*man*), 92, 208
**Extrasystole**, vagus stimulation effect on conduction in ventricles during (*dog*), 80, 337
**Eye**, adaptation effect on differential brightness discrimination in (*man*), 92, 406
adaptation and intensity discrimination in (*man*), 83, 466; 87, 30
after-image latency in (*man*), 66, 281
arterial pressure in (*cat*), 62, 1
colour sensitivity of (*man*), 62, xxi
electrical response to monochromatic stimuli in dark adaptation of (*frog*), 88, 436
flicker sensitivity in (*man*), 74, 407
fusion frequency in (*cat*), 78, 428
hue discrimination and adaptation in (*man*), 88, 167
intra-ocular pressure affected by drugs in (*dog*), 71, 1
light adaptation in (*man*), 71, xiii
light transmission by media of (*cat*), 98, 179
'lysocithin' and cobra venom action on (*rabbit*), 94, 217
muscles, 'contraction time' and tetanus maintenance in (*cat*), 69, 381
neuro-muscular transmission in extrinsic muscles of (*cat*), 99, 379
optic nerve discharges with light on (*eel*), 63, 378; (*frog*), 63, 391
perfusion of (*dog*), 71, 3
physiological irradiation in (*man*), 69, xvii
pressure equilibrium of (*cat*), 64, 78
pressure relationships in (*dog*), 61, 409; (*cat*), 62, 9
retina. *See* **Retina**
'slow potentials' with excitation and inhibition of excised (*frog*), 93, 9*P*

**Eye**, visual purple affected by bleaching of (*frog*), 94, 436
regeneration in dark adaptation of (*rat*), 71, 454
vitreous body composition in (*horse*), 68, 155
**Eyeball**, exophthalmos relation to vascular engorgement in (*dog*), 97, 391

**Face-tent**, recent types of (*man*), 92, 31*P*
**Facial nerve degeneration**, pseudo-motor contractures and (*dog*), 73, 54
**Facilitation**, antidromic volley on sympathetic ganglion and (*cat*), 88, 28
cerebral cortex activity following stimulation and (*rabbit*), 88, 143
cerebral cortex and eserine action on (*cat*), 91, 219
ciliary ganglion and (*mammal*), 89, 107
crossed extensor reflexes and (*cat*), 67, 103
cursarine effect on ocular neuro-muscular (*cat*), 99, 384
inferior mesenteric ganglion and (*cat*), 91, 304; 95, 465
motor cortex stimulation and pyramidal tract activity showing (*mammal*), 97, 188
neuro-muscular junction and decay rate of (*frog*), 95, 290
showing (*crab*), 87, 202
plain muscle inhibitory mechanism and (*crayfish*), 93, 187
spinal flexion reflex and (*cat*), 69, 5
sympathetic ganglion N and P potential waves showing (*cat*), 85, 487
and occurrence of (*cat*), 85, 200
showing, 87, 81*P*
sympathetic lumbar ganglion showing (*cat*), 86, 274
**Faeces**, bilirubinoid pigments in (*man*), 100, 4*P*
iron content after intravenous administration (*man*), 94, 152
**Fagopyrism**, buckwheat principle concerned in (*rodent*), 100, 212
**Fallot's tetralogy**, blood gases in (*man*), 80, 26*P*
**Fascia**, sensory nerve impulses from (*cat*), 78, 31
**Fasting**, appetite affected by duration of (*rabbit*), 90, 389
endocrine gland weight affected by (*rat*), 85, 164
glycogen store with different diets affected by (*rat*), 92, 49
heart glycogen affected by (*rat*), 82, 471
insulin content of pancreas affected by (*rat*), 97, 107
**Fasting**, lævulose tolerance and (*rat*), 80, 483
liver fat affected by (*guinea-pig*), 92, 96
and choline action in (*rat*), 83, 268
muscle glycogen affected by (*cat*), 73, 72
**Fat absorption**. *See* **Fat absorption**
agglutinin titre affected by (*man*), 99, 1*P*
alcohol distribution between blood and (*cat*), 98, 232
blood particle composition and, 95, 70
calorific value of (*man*), 72, 358
depancreatised animals affected by (*dog*), 75, 50
deposition, hypophysectomy and thyroid action on (*rabbit*), 83, 169
massage effect on (*mammal*), 100, 395
diet. *See* **Fat diet**
distribution and composition of (*man*), 72, 349
excretion, renal ischæmia causing (*dog*), 93, 51*P*
formation, glucose specific dynamic action and (*dog*), 91, 158
gastric motility affected by (*mammal*), 84, 41
heart utilization of (*H-L*), 86, 11
lipase digestion with state of emulsification of, 78, 467
liver fat affected by lecithine and (*rat*), 75, 56
metabolism. *See* **Fat metabolism**
pregnancy effect on tissue distribution of (*sheep*), 99, 443
serum particle count affected by (*man*), 90, 22
relation to ingestion of (*man*), 87, 72*P*
sugar formation from, 87, 11*P*
**Fat absorption**, bile and (*cat*), 64, v
factors concerned in (*cat*), 64, xxxiii
factors inhibiting, 84, 41*P*
fat/fatty acid partition in (*man*), 94, 24*P*
leucocyte role in (*frog, rabbit*), 93, 1
serum particle count relation to (*man*), 87, 72*P*; 90, 24
**Fat diet**, adrenaline content of adrenal glands affected by (*rat*), 80, 307
choline effect on liver fat with (*rat*), 81, 413; 83, 256
glucose tolerance and insulin action affected by (*rabbit*), 81, 32
glycogenogenesis affected by (*rat*), 95, 356
insulin action and (*rat*), 65, 191
insulin content of pancreas affected by (*rat*), 97, 111
sugar formation in liver following (*mammal*), 61, 503
urine flow affected by (*rat*), 77, 29*P*
vitamin $B_1$ effect on liver fat with (*rat*), 89, 290

**Fat metabolism**, aglycaemic heart and (*rat H-L*), 99, 219
anterior pituitary extract effect on (*rat*), 86, 194
in different species effect on (*mammal*), 92, 91
choline action on (*rat*) 75, 405; 83, 255
deuterium indicator of (*mouse*), 93, 371
heart and (*frog*), 72, 455
iodoacetate action on cardiac (*frog*), 90, 344
**Fatigue**, adrenaline action in (*frog*), 78, 172
adrenaline action on nerve potentials with (*cat*) 99, 205
cardio-inhibitory reflex and 71, 419
crustacean nerve and 63, 120
delayed anaerobic heat affected by (*frog*), 74, 224
'economy' of contraction in (*frog*) 69, 312
lactic acid neutralisation in muscle during (*frog*), 68, 301
nerve heat production in (*crustacean*), 77, 132
nerve strength-duration curve affected by (*frog*), 82, 329
neuro-muscular contracture and (*frog*), 76, 78
pacinian corpuscle discharges and (*cat*), 68, 145
phosphate changes in muscle with (*frog*), 68, 205
plain muscle inhibitory mechanism and (*crayfish*), 93, 185
plurisegmental innervation of muscle and (*frog*), 70, 209
sensory end-organ single preparation and (*frog*), 71, 69
skeletal muscle end-plate delay and (*frog*), 76, 116
response and (*frog*), 72, 161
skeletal muscle lactate diffusion equilibrium in (*frog*), 79, 197
skeletal muscle *p*H and (*cat*), 63, 35
skeletal muscle sense organ and (*frog*), 67, 270
skeletal muscle strength-duration curve affected by (*frog*), 77, 344
stimulation rate to muscle affecting onset of (*cat*), 71, 294
**Fatty acid**, iodoacetate effect on aerobic heart usage of (*frog*), 90, 339
**Fatty infiltration**, pregnancy effect on liver (*sheep*), 97, 238
**Femur**, calcium intake effect on size and strength of (*rat*), 100, 311
**Feng effect**, muscle *p*H change with (*frog*), 82, 496
**Ferret**, anterior pituitary extract effect on anoestrus, 69, XVIII
corpus luteum and oestrus cycle affected by hysterectomy, 78, 82
male reproductive cycle, 71, XX
mammary gland hormone control and pseudo-pregnancy, 65, XVIII
oestrus course in, 65, XVII
ovulation induced by anterior pituitary extract, 80, 78
**Ferrocyanide**, renal excretion of (*P-L-K*), 95, 3*P*
**Fertility**, anterior pituitary and P.U. extracts in prolonged treatment effect on (*rat*), 80, 109
embryonic extracts action on (*mammal*), 97, 502
prolan effect on (*fox*), 96, 35*P*
temperature effect on (*mice*), 64, 391
thymectomy effect on (*rat*), 74, 212
**Fibrillation**, coronary flow affected by (*H-L*), 67, 92; 67, 312
**Fibrin preparation**, cod muscle and, 62, XIII
**Fibrinogen**, deterioration with age of (*man*) 75, 428
estimation of (*man*), 80, 422
foreign particles in blood affecting (*rabbit*), 62, 142
**Fick principle**, carbon dioxide and (*man*), 70, 244
**Film development**, economical method of, 100, 13*P*
**Fin**, respiration rate of (*eel*), 77, 283
**Fin nerve**, action potentials in (*Sepia*), 83, 21*P*
electric excitation of (*Sepia*), 83, 20*P*; 83, 425
electrotonus in (*Sepia*), 86, 6*P*
strength-duration curve of (*Sepia*), 83, 23*P*
**Fish**, olfactory stalk potentials, 94, 441
pituitrin action on water balance, 95, 501
rigor mortis and lactic acid production, 61, IV
**Fixation point**, after-image latency and (*man*), 66, 294
**Flack-Woolham figure**, pulse-respiratory tests and (*boy*), 65, VI
**Flare**, venule relaxation in (*man*), 64, XXXII, XXXVI
**Flexor digitorum profundus**, extensor reflexes of fore-limb and (*cat*), 65, 310
**Flexor-extensor antagonism**, voluntary contraction and (*cat*), 62, 273

**Flexor reflex**, characteristics of, 70, xxv
eserine and prostigmine, etc. effect on (*dog*), 100, 351
extensor relaxation in (*cat*), 63, 167
'interference' of (*cat*), 62, 95
motor nerve impulse frequency in (*cat*), 67, 122
paraplegia effect on (*dog, monkey*), 75, 17
subliminal fringe in (*cat*), 66, 175
**Flexor rigidity**, anaesthesia depth and (*cat*), 71, ix
preparation showing, 83, 36*P*
**Flicker**, light adaptation in relation to local adaptation to (*man, frog*), 84, 111
optic nerve discharge and (*eel*), 65, 278
regional sensitivity to (*man*), 74, 407
retina and optic nerve action potentials in (*frog*), 83, 371
retinal action potentials and (*cat*), 78, 439; (*man*), 79, 188
retinal responses and (*frog*), 81, 16; (*bird, mammal*), 85, 421
**Flow recorder**, Gaddum's, 67, xvi
**Fluid electrode**, convenient form of, 80, 14*P*
**Fluorescein**, renal elimination of (*frog, rat*), 97, 436
**Fluoride**, acetylcholine protection by, 70, 346
glycogen and calcification of bones and teeth affected by (*rat*), 98, 6
glycogen synthesis from lactate in muscle affected by (*frog*), 83, 33*P*
muscle excitability affected by (*frog*), 83, 47*P*
muscle extract enzymes and action of (*rabbit*), 65, 121
**Fluorine**, maternal transference of (*rat*), 87, 388
**Fly**, muscle phosphate compounds, 80, 233
**Foetal age**, blood saturation relation to (*sheep*), 97, 341
umbilical blood oxygen saturation relation to (*sheep*), 97, 352
weight relation to (*goat*), 83, 194
**Foetal apnoea**, investigation of (*goat*), 69, 144
**Foetal blood**, carbon dioxide and alkali reserve of (*goat*), 80, 491
carbonic anhydrase activity of (*goat*), 80, 137
gas tensions, maternal blood relation to (*goat*), 62, 373
oxygen and carbon dioxide in mother and (*cow*), 92, 249
oxygen capacity of (*goat*), 82, 168
oxygen in carotid and umbilical arteries of (*sheep*), 87, 37*P*
**Foetal blood**, oxygen saturation in, 93, 22*P*
spectroscopic comparison with maternal (*mammal*), 83, 33
**Foetal growth**, uterine oxygen consumption and (*rabbit*), 77, 201
**Foetal haemoglobin**, comparison with mother to alkaline denaturation and spreading velocity (*mammal*), 88, 162
oxygen affinity for (*goat*), 80, 208
**Foetus**, asphyxia effect on respiration in (*sheep*), 96, 12*P*
asphyxia effect on respiratory movement (*sheep*), 97, 338
blood distribution in placenta and (*sheep*), 95, 173
blood pressure changes with uterine contractions in (*cat*), 74, 391
reflexes development in (*mammal*), 83, 229
blood volume of (*goat*), 82, 165
brain oxygen supply in (*sheep*), 97, 339
brain stem and spinal cord lesions effect on movements of (*sheep*), 91, 337
carbohydrate metabolism affected by insulin in (*dog*), 92, 219
cardiac output in (*goat*), 82, 503
fluorine transfer from mother to (*rat*), 87, 388
heart rate affected by umbilical cord clamping in (*sheep*), 90, 25*P*
insulin effect on blood sugar of (*sheep, goat*), 92, 459
leg amputation in (*sheep*), 93, 29*P*
nervous system transection effect on movements of (*sheep*), 89, 55*P*
oxygen consumption with age of (*goat*), 82, 507; (*sheep*), 95, 269
direct measurement in, 93, 21*P*
oxygen dissociation curve in (*man*), 87, 100
with duration of pregnancy (*goat*), 83, 199
placenta weight relation with age of (*goat*), 82, 162
with duration of pregnancy to weight of (*rabbit*), 83, 216
placental blood movement at birth to (*sheep*), 90, 27*P*
pregnancy duration and length of (*guinea-pig*), 100, 268
respiratory centre responses of (*goat*), 61, xxx
respiratory movements genesis in (*sheep*), 88, 56
relation to blood gases in (*cat*), 94, 531
respiratory reflexes in (*goat*), 69, 144
'righting' movements development in (*sheep*), 89, 19*P*

**Foetus**, serum protein osmotic pressure in (*sheep*), 93, 81
vagus action in asphyxia of (*rabbit*), 93, 92
weight/blood volume relationship in (*sheep*), 95, 177
**Follicle.** *See* **Graafian follicle**
**Food**, intestinal movements resulting from (*dog*), 67, 218
leucocytosis in normal and hepatic cases produced by (*man*), 77, 63
phlorrhizin action after hypophysectomy affected by (*dog*), 77, 84
plasma auto-oxidation following taking of (*man*), 65, 11
serum ultramicroscopic particles affected by (*man*), 87, 53*P*
**Foot**, cerebral sensory cortex double representation of (*cat*), 98, 16*P*
sensory nerve impulses with touch and pressure on, 61, 465
**Foramen ovale**, functional closing time of (*sheep*), 94, 256
**Forced breathing.** *See* **Overventilation**
**Force-velocity relationship**, skeletal muscle and (*cat, frog*), 85, 283
**Forebrain**, olfactory discharge and potential rhythm in (*fish*), 94, 454
**Fore-limb**, extensor reflexes in (*cat*), 65, 305
reflexes, brain stem section level effect on (*cat*), 73, 1
rigidity, lumbo-sacral cord section effect on (*cat*), 76, 3*P*
**Formaldehyde**, urinary changes following injection of (*rat*), 97, 2
**Fovea**, flicker sensitivity at (*man*), 74, 412
**Fowl**, adenosine estimation on rectal caecum, 85, 5
androgens oral administration action, 94, 22*P*
gastro-intestinal intrinsic nerve fibres, 90, 53*P*; 91, 1*P*
Hering-Breuer reflex, 97, 525
histamine estimation on rectal caecum, 85, 3
hormone anti-sera specificity, 90, 100
intestine response to adrenergic nerve substance, 96, 104
lung air stream direction, 97, 133
neuro-muscular conduction and tetanus effect on, 93, 293
oestradiol and testosterone antagonism, 95, 387
oestrogens effect on comb, 95, 382
oxytocin action on blood pressure, 65, 435
pituitrin action on blood pressure, 76, 166
**Fowl**, plasma 'ageing' to trypsin coagulation and lecithin, 96, 20*P*
respiratory quotient affected by glucose, 78, 2*P*
skeletal muscle response to acetylcholine, 94, 103
to two stimuli, 93, 288
**Fox**, prolan effect on fertility, 96, 35*P*
**Fractional contraction of muscle**, active and inactive fibres in (*frog, cat*), 67, 1
**Fragility.** *See* **Blood corpuscles, red**
**Fright**, colonic mucosa vascular reactions to (*dog*), 68, 173
**Frog**, survival at low temperatures of, 83, 16*P*
**Fructose**, respiratory quotient of (*man*), 63, 315
***Fundulus***, blood osmotic pressure affected by salt and fresh water environment, 85, 6*P*
embryonic heart nerve development and acetylcholine action, 84, 20
**Fusion frequency**, factors influencing (*cat*), 78, 430
retinal responses and factors determining (*frog*), 81, 18
**Galactose**, phosphate ester formed in liver from (*rabbit*), 93, 34*P*
respiratory quotient of (*man*), 63, 315
**Galactose metabolism**, phosphoric esters in, 100, 10*P*
**Gall bladder**, calcium absorption from (*mammal*), 70, 434
gas tensions in (*mammal*), 77, 6*P*
**Galvanic contracture**, nature of (*frog*), 76, 66
**Galvanometer**, rapid system for myothermic experiments, 92, 43*P*
**Galvanometer curve analysis**, criticism of, 69, 67, 81
**Gamma curve**, chronaxie in slow muscle and (*Holothuria*), 78, 381
**Gamma excitability**, general occurrence in muscles of (*frog*), 72, 285
identification of (*frog*), 75, 161
**Gamma radiation**, retina development affected by (*rat*), 87, 1*P*
**Gamma substance**, muscle and presence of (*frog*), 70, 328
**Ganglion**, potential changes in (*Dytiscus*), 72, 132
**Gas analysis**, automatic shaker for, 69, xxix
**Gas analysis apparatus**, mechanical mixer for, 61, xxix
modification of Haldane's, 68, xiv
**Gas tensions**, uterus and (*rabbit*), 76, 13*P*

**Gasping respiration**, hydrocyanic acid action in producing (*mammal*), 69, 139
**Gastric acidity**, acid base equilibrium effect on (*man*), 83, 16*P*
blood bicarbonate effect on (*man*), 73, 311
duodenal control of (*man*), 67, 34
duodenal regurgitation in regulation of (*cat*), 87, 360
factors controlling (*man*), 65, 63
hypochlorsemia and alkalosis effect on (*man*), 96, 21
measurement by buffering of (*cat*), 97, 310
'mecholin' action on (*monkey*), 83, 455
mucus neutralization of (*cat*), 77, 287
neutralization of (*man*), 81, 16*P*
pilocarpine action on (*monkey*), 82, 1
regulation of (*man*), 66, 356; 70, 158
stomach emptying rate relation to (*man*), 83, 17*P*
**Gastric chloride**, mucus secretion and (*cat*), 77, 306
pilocarpine effect on (*monkey*), 82, 3
**Gastric digestion**, hydrochloric acid during (*man*), 65, 63
peptic activity in (*man*), 67, 416
**Gastric juice**, acidity of stomach regulated by (*man*), 70, 162
acidity variations during secretion of (*cat*), 73, 115
blood bicarbonate effect on (*man*), 73, 311
buffering substances in (*man*), 73, 427
non-electrolytes concentration after injection (*cat*), 95, 139
primary acidity measurement in (*cat*), 97, 308
regulation of acidity of (*man*), 66, 356
salt deficiency effect on composition of (*man*), 92, 213
volume, mucus neutralizing action in relation to (*cat*), 77, 288
**Gastric motility**, cortical stimulation effect on (*monkey*), 83, 177
fat effect on (*mammal*), 84, 41
hypothalamic stimulation effect on (*cat*), 81, 218
'outline method' for study of (*dog*), 79, 423
**Gastric mucosa**, carbonic anhydrase in cells of (*mammal*), 97, 37
histamine release from (*dog*), 96, 143
**Gastric mucus**, neutralization effect of (*cat*), 87, 362
neutralizing function of (*cat*), 77, 287
properties of (*cat*), 73, 120
**Gastric nerves**, vagal origin of (*cat*), 77, 447
**Gastric secretion**, alveolar carbon dioxide tension affected by (*man*), 70, 186
blood carbon dioxide relation to (*dog*), 75, 345
blood pH affected by (*man*), 79, 4*P*
duodenal acid injection effect on (*man*), 87, 36
duodenal extract action on (*cat*), 69, 43
exercise and curarine effect on (*cat*), 99, 3*P*
gastric contents concentration affecting histamine action on (*cat*), 99, 154
hypertonic solutions intravenously effect on (*cat*), 93, 430
hypochlorsemia effect on (*man*), 96, 21
myxoedema effect on (*man*), 85, 21*P*
parathyroid extract effect on (*dog*), 98, 27*P*
parathyroidectomy effect on (*dog*), 78, 26*P*
physique in relation to (*man*), 83, 39*P*
secretin action on (*cat*), 98, 1*P*
urine acidity affected by (*man*), 78, 73
**Gastric vagus**, acetylcholine as transmitter for (*dog*), 80, 16*P*
acetylcholine liberation on stimulation of (*dog*), 81, 324
**Gastro-colic reflex**, exteriorized colon showing (*dog*), 76, 466
**Gastro-intestinal intrinsic nerve fibres** (*fowl*), 90, 63*P*
**Gastro-intestinal nerve fibres**, nature of (*fowl*), 91, 1*P*
**Gastro-intestinal tract**, nerve stimulation effect on (*skate*), 83, 56
sympathetic nerve action potentials on stimulation of (*frog*), 78, 233
**Gastro-oesophageal reflex** (*man*), 65, 161
**Gastrocnemius**, 'contraction time' and tetanus maintenance in (*cat*), 69, 381
plurisegmental innervation of (*frog*), 66, 434
stimulation, vasomotor reflexes and (*cat*), 65, 335
tibialis anticus spinal preparation (*cat*), 69, 12
vascular system volume in (*frog*), 100, 239
**Gelatin**, renal excretion of (*mammal, P-L-K*), 77, 391
**Germinal epithelium**, tissue culture of (*chick*), 63, VI
**Gestation sac**, gas pressures in (*rabbit*), 87, 68*P*
**Giant nerve axon**, local excitability and local physiological response in (*squid*), 98, 47
partial excitation and variable conduction in (*squid*), 98, 26

Giant nerve fibre, conduction velocity relation to outside resistance of (*squid*), 94, 565
electrolyte content of (*squid*), 98, 299
impulses in (*earthworm*), 77, 23*P*
structure of (*Sepia*), 83, 27*P*
Gill, 'chloride-secreting cells' in (*eel*), 76, 368
secretory activity of (*eel*), 75, 226
Gill tissue respiration, osmotic concentration of perfusing fluid effect on (*eel*), 77, 277
Glass electrode, comparative study of, 61, 448
modification of, 81, 147
for use at body temperature, 95, 15*P*
Glaucoma, aqueous humour osmotic pressure in (*man*), 92, 357
aqueous humour-serum chloride relationship in (*man*), 94, 120
Globe thermometer, radiant heat measurement by, 70, xv
Globin, haematin combination with, 61, xxii
Glomerular capillary pressure, estimation of (*P-L-K*), 99, 143
Glomerular diuresis, Ringer diuresis comparison with (*P-L-K, dog*), 98, 339
Glomerular filtration, ureter pressure-urine flow relationship and theory of (*dog*), 83, 38*P*
Glomerular filtration rate, ureter, venous and arterial pressures effect on (*P-L-K*), 99, 135
Glomerular pressure, adrenaline action on (*H-L-K*), 73, 151
measurement of (*H-L-K*), 72, 363
Glucose absorption. *See* Glucose absorption
acetylcholine synthesis in ganglion with (*cat*), 93, 46*P*
assimilation, limiting rate of (*dog*), 87, 311
oxidation rate relation to (*dog*), 90, 456
specific dynamic action relation to (*dog*), 91, 148
blood sugar affected by intravenous (*man*), 95, 4*P*
body fluids equilibrium after injection of (*cat*), 95, 139
brain usage with narcotics (*rat*), 92, 323
diastase inhibited by, 75, 10*P*
excretion, blood sugar relation with glucose infusion rate (*dog*), 87, 329
cyanide effect on (*P-L-K*), 74, 286
phlorrhizin action on (*dog*), 69, 411
phlorrhizin effect on other sugars and (*rabbit*), 80, 249
Glucose, feeding, exercise capacity affected by (*dog*), 77, 55
heart anaerobic activity affected by (*frog*), 75, 328; 80, 489
heart beat affected by insulin and (*frog*), 83, 285
heart-lung preparation and, 65, 42
hyperglycaemia, atropine action on (*rabbit*), 79, 245
infusion, oxidation in relation to rate of (*dog*), 90, 440
intestine contractions in asphyxia affected by (*mammal*), 85, 254
intestine permeability to (*rabbit*), 69, 188
intestine stimulation by (*rabbit*), 98, 22*P*
liver glycogen formation from (*cat*), 73, 93
storage after hypophysectomy in young from (*rabbit*), 88, 409
oxidation in relation to rate of infusion of (*dog*), 90, 440
oxidation, specific dynamic action relation to 91, 149
protein-sparing action and insulin effect on (*cat*), 87, 125
pulmonary oedema affected by (*cat H-L*), 75, 294
red blood cell permeability to (*rabbit*), 70, 177
respiratory quotient of (*man*), 63, 315
skeletal muscle and diffusion of, 84, 59*P*; (*frog*), 97, 233
specific dynamic action of intravenous (*dog*), 91, 140
sympathetic ganglion synthesis of acetylcholine affected by (*cat*), 96, 280
tolerance. *See* Glucose tolerance
utilization, infusion rate relation to (*dog*), 87, 315
*See also* Sugar
Glucose absorption, alcohol action on (*cat*), 66, 102
autonomic system action on (*mammal*), 80, 48
calcium action on (*rat*), 75, 434
decerebration effect on (*rat*), 78, 199
factors influencing (*mammal*), 70, 404
rate of (*mammal*), 73, 163
galactose, xylose and fructose comparison with (*cat*), 97, 512
glycogen in intestinal wall during (*mammal*), 78, 290
liver glycogen formation and rate of (*mammal*), 84, 307
stomach with alcohol and (*cat*), 65, 381
Glucose tolerance, adrenal medulla effect on (*rabbit*), 75, 25*P*
adrenalectomy effect on (*cat*), 81, 95
body surface relation to (*rabbit*), 73, 367

Glucose tolerance, diet effect on (*rabbit*), 81, 12
exercise effect on (*man*), 93, 145
hypophysectomy effect on (*rabbit*), 80, 200
sympathectomy effect on (*dog*), 95, 431
vagus action on (*rabbit*), 61, xiii
vagus section effect on (*rabbit*), 61, 576; (*mammal*), 73, 298
Glucosone, insulin-like action of (*hammal*), 66, 267
Glutamic acid, urea formation in perfused liver from ammonia and (*rat*), 100, 455
Glutathione, anaerobiosis in plain muscle and action of (*mammal*), 66, 244
iodoacetate action on anaerobic heart with (*frog*), 80, 463
Glycaemia, glycosuria relation with glucose infusion rate (*dog*), 87, 339
Glyceric aldehyde, heart in anaerobiosis affected by (*frog*), 80, 463
insulin hypoglycaemia and (*mammal*), 61, xxxiv
Glycine, carbon dioxide effect on osmotic pressure of, 73, 326
Glycocholic acid, estimation of, 64, vii
Glycogen, adipose tissue and deposition of (*mammal*), 100, 388
adrenaline action on distribution of (*cat*), 73, 103; (*rabbit*), 79, 289
autolysis in placenta of (*rabbit*), 81, 183
calcification of bones and teeth relation to (*rat*), 98, 1
decapitation and decerebration effect on (*cat*), 73, 81
diet effect on stability of stores of (*rat*), 92, 48
distribution, hypophysectomy effect on adrenaline action on (*rabbit*), 87, 7
fat diet on liver (*rat*), 65, 198
formation, glucose specific dynamic action and (*dog*), 91, 163
heart chambers and distribution of (*frog*), 100, 329
insulin action in foetus on (*dog*), 92, 220
insulin action on distribution of (*rabbit*), 79, 293
lactic acid as source of in muscle (*frog*), 70, 290
perfused liver and formation of (*mammal*), 61, 508; (*dog*), 65, 54
phosphate metabolism in muscle and (*cat*), 62, 184
placenta and liver comparison (*rabbit*), 66, xi
post-mortem changes in muscle and liver (*cat*), 64, 255
Glycogen, post-mortem disappearance from tissues of (*cat*), 73, 70
skeletal muscle extract use of (*rabbit*), 65, 118
small intestine and synthesis of (*mammal*), 78, 238
sympathectomized muscle and (*dog*), 69, 366
synthalin action on muscle (*cat*), 65, 94
Glycogenolysis, muscle and liver post-mortem (*cat*), 64, 255
Glycolysis, blood lactate in resting state relation to (*man*), 79, 451
glucose specific dynamic action and (*dog*), 91, 165
leucocytes action in (*dog*), 84, 179
lungs action in (*P.-L.*), 82, 41
skeletal muscle enzyme system and, 64, xvi
skeletal muscle extract and (*rabbit*), 65, 118
tumour phosphate changes with (*mouse*), 74, 109
Glyconeogenesis, dietary factors affecting (*rat*), 95, 356
Glycosuria, glucose infusion rate relation to (*dog*), 87, 314
lecithine in depancreatised animals affecting (*dog*), 75, 49
phlorrhizin, drugs acting on (*rat*), 64, 350
Glycotropic factor, factors affecting action of (*rabbit*), 92, 183
insulin sensitivity after hypophysectomy affected by (*rabbit*), 94, 40
liver glycogen affected by (*rabbit*), 90, 20*P*
pregnancy urine containing (*man*), 93, 18*P*
sugar tolerance response to diet change affected by (*rabbit*), 91, 452
Glycotropic hormone, insulin disappearance after injection affected by (*rabbit*), 97, 424
Glycyl-thyroxine, oxygen consumption affected by (*rat*), 68, 395
Glyoxals, physiological actions of (*rat*), 70, ix
Goat, abortion with corpus luteum removal, 61, 610
congenital myotonia and muscle reactions, 96, 11*P*
ethyl iodide partition coefficient, 64, 116
foetal age and cardiac output, 82, 503
effect on blood oxygen capacity, 82, 109
/weight relation, 83, 194
foetal apnoea, 69, 144

**Goat**, foetal and maternal blood carbon dioxide, 80, 492
blood gases, 62, 373
blood oxygen saturation, 83, 204
haemoglobin, 80, 206
foetal respiratory centre responses, 61, xxx
foetal respiratory movements genesis, 88, 56
foetal respiratory reflexes, 69, 144
foetus-placenta ratio of blood flow, 82, 505
insulin effect on foetal blood sugar, 92, 459
lactation with stilboestrol, 98, 15*P*
mammary gland development and corpus luteum, 61, 608
neuro-muscular transmission affected by calcium, 97, 330
nitrogen diffusion rate into bone marrow, 75, 22*P*
placenta and gas diffusion through, 62, 373
pregnancy effect on blood pH, 83, 210
pregnant uterus response to oxytocin, 81, 278
secretin extraction, 61, 122
teat growth affected by oestrus cycle, 99, 5*P*
uterine cornua and cervix reciprocal activity, 81, 277
**Goitre**, thyreotropic hormone action in (*rat*), 82, 20
**Goldfish**, nervous system, potential waves from, 71, 123
**Golgi apparatus**, bile secretion and (*mammal*), 62, 74
thyroid gland activity and changes in (*mouse*), 61, 402
**Gonadectomy**, adrenal, thyroid and pituitary glands affected by (*rat*), 79, 1
ovulation hormone content of pituitary affected by (*rabbit*), 83, 141
**Gonadotrophin**, activities of pituitary preparation of (*mammal*), 96, 4*P*
**Gonadotropic anti-serum**, class specificity to (*fowl, mammal*), 90, 100
specificity of (*mammal*) 90, 19*P*
**Gonadotropic hormone**, new born reaction to (*rat*), 75, 39*P*
oestrogen antagonism to (*rat*), 94, 180
ovary affected after hypophysectomy by (*rabbit*), 90, 127
pregnancy affected after hypophysectomy by (*rabbit*), 90, 150
species variation in anterior pituitary (*mammal*), 83, 137
testosterone effect on action of (*monkey*), 93, 15*P*
**Gonadotropic hormone**, testosterone and progesterone action on (*mouse*), 92, 378
**Gonadotropic sera**, augmentation action of (*mammal*), 91, 7*P*
**Gonadotropic substance**, vitamin B deficient adult rat as test animal for 96, 248
**Goose skin**, electrical stimulation and production of (*man*), 64, 87
**Graafian follicle**, hormone concentration necessary for ovulation from (*rabbit*), 74, 173
length of life of (*rabbit*), 80, 176
oestrus-producing extract from (*mammal*), 61, 572
ovulation in relation to number of (*rabbit*), 81, 346
**Gravity receptors**, auditory nerve discharges from (*frog*), 86, 128
**Grey matter potentials**, electrotonic conduction of, 86, 29*P*
**Growth**, adrenal cortical extract action on (*mouse*), 76, 193
blood volume increase with (*sheep*), 94, 539
calcium intake effect on (*rat*), 100, 310
choline and vitamin $B_1$ action on (*rat*), 85, 345
choline esterase of muscle variation with (*bird, mammal*), 95, 32
parathyroid gland anti-principle to (*mammal*), 76, 503
pineal gland removal effect on (*rat*), 81, 58
pituitary diabetogenesis relation to (*mammal*), 100, 19*P*
rickets in relation to (*rabbit*), 61, xxiii
seminal vesicles development with (*mouse*), 78, 442
vitamin A deficiency effect on nerve structures and (*rat*), 94, 318
**Guanidine**, adrenaline protection *in vitro* by, 88, 2*P*
cardiac vagus affected by, 84, 16*P*
chronaxie affected by (*cat*), 62, 124
histaminase affected by, 95, 30*P*
parathyroid extract effect and (*dog*), 87, 73*P*
**Guanylic acid**, heart beat affected by (*rabbit*), 74, 150
**Gum acacia**, oedema development with perfusion of (*frog*), 98, 116

**Haematemesis**, renal function affected by (*man*), 99, 344
**Haematin**, globin combination with, 61, xxii
**Haematocrit**, colorimetric method compared with, 70, 31

**Haematocrit reading.** *See* Blood corpuscles, red, concentration
**Haematoporphyrin sensitization,** light action on (*mammal*), 64, 30
**Haemocyanin,** buffering power of (*Maia*), 62, 67
haemoglobin comparison with, 79, 177
oxygen dissociation rate of (*arthropod*), 79, 164
renal excretion of (*ox*), 77, 393
**Haemoglobin,** actioporphyrin action on regeneration of (*rabbit*), 89, 403
alkali denaturation of compounds of, 100, 3*P*
for differentiating types of (*man*), 85, 119
carbamino $CO_2$ determination of, 81, 21*P*
carbamino compound, carbon dioxide transport by (*man*), 88, 40
direct chemical estimation of, 83, 68
factors affecting, 83, 87
carbon dioxide absorption by buffer solutions affected by, 73, 358
catalyst relation to, 75, 3*P*
combination with, 73, 320
dissociation curve, temperature effect on, 67, 290
reaction with, 70, 383
carbonic anhydrase activity relation to oxygenation of, 93, 125
dissociation from (*marine invertebrates*), 80, 172
preparation from, 80, 120
catalytic action on carbonic acid formation by, 72, 6*P*
chlorophyll effect on regeneration of (*rabbit*), 86, 388
colourless crystals, polariscope appearance of (*guinea-pig*), 61, xxxiv
crystals, colourless form of (*mammal*), 61, xx
denaturation rates showing two types of (*man*), 80, 382
dilution, water diuresis relation to (*rabbit*), 75, 92
embryonic types of (*chick*), 83, 223
exercise effect on concentration of (*man*), 69, 285
foetal and maternal comparison of (*goat*), 80, 206
comparison to alkaline denaturation and spreading velocity of (*mammal*), 88, 162
differences in (*mammal*), 88, 162
haemocyanin comparison with, 79, 177
heat of ionization of, 67, 288
hydration, measurement of, 72, 2*P*
**Haemoglobin,** hypertonic solutions effect on concentration in blood of (*cat*), 93, 432
intermediate compounds in oxygenation of, 71, 257
molecular weight, foetal and maternal (*goat*), 80, 210
oedema development with perfusion by (*frog*), 98, 121
osmotic pressure, species differences in (*mammal*), 86, 80
oxygen acclimatization and (*mammal*), 63, 328
oxygen capacity, methods of measurement of, 66, 262
oxygen dissociation curve of dilute (*mammal*), 71, 229; (*horse*), 71, 261
species differences in (*mammal*), 86, 78
oxygen dissociation rate of (*sheep*), 79, 164
oxygen equilibrium, nature of, 71, 250
oxygen pressure affecting (*rabbit*), 62, 217
relation to, in carbon monoxide poisoning (*rabbit*), 68, 85
perfusion solution of, 100, 18*P*
photographic measurement of gases combined with, 64, 405
plasma auto-oxidation and, 65, 12
porphyrin-low diet effect on regeneration of (*mammal*), 95, 508
pregnancy effect on total (*sheep*), 95, 168
red blood cell area relation to (*mammal*), 66, 379
renal excretion of (*mammal, P-L-K*), 77, 395
salt effect on adsorption of (*ox muscle*), 67, 285
skeletal muscle adsorption of (*ox*), 67, 282
vascular system volume determination by (*frog*), 100, 242
species difference in oxygen dissociation curves and osmotic pressures of (*mammal*), 86, 77
spectroscope analysis for dilute solutions of, 80, 502
spleen pulp and concentration of (*dog*), 64, 26
splenic blood and content of (*cat*), 61, 459
splenic contractions affected by injection of (*cat*), 74, 303
surface-pressure curves for differentiating types of (*man*), 85, 120
synthesis from globin and haematin of, 61, xxii
temperature effect on concentration in blood of (*man*), 84, 416
tissue oxygen tension and (*rabbit*), 65, 256
types in blood of (*man*), 80, 377; 85, 117

**Haemoglobin**, ultra-violet absorption of foetal and maternal (*man*), 92, 229
vapour pressure, carbon dioxide effect on, 72, 7*P*
water drinking effect on concentration of (*man*), 78, 135
**Haemoglobinaemia**, splenic blood and (*cat*), 94, 490
**Haemoglobinometer**, photo-electric type of, 71, x; 69, xxii
**Haemolysis**, blood changes following (*rabbit*), 65, 259
red blood cells of spleen and, 61, vii
washing effect on (*rabbit*), 74, 263
serum anti-factor to (*man*), 90, 68*P*
species variation in light effect on (*vertebrate*), 99, 510
tissue oxygen tension following (*rabbit*), 65, 256
tonicity of solutions and (*rabbit*), 73, 279
vaso dilator action of blood and (*dog*), 64, 167
**Haemorrhage**, blood changes following (*rabbit*), 65, 259; (*cat*), 84, 393
blood regeneration following (*dog*), 62, 192
carbon monoxide poisoning comparison with (*rabbit*), 68, 84
chlorophyll effect on haemoglobin regeneration following (*rabbit*), 86, 388
circulation model showing effects of and recovery from, 97, 430
renal changes before and after kidney denervation with (*H-L-K*), 69, 140
renal function affected by alimentary (*man*), 99, 344
spleen changes in (*cat*), 64, 6
spleen volume affected by (*rabbit*), 66, 76
tissue oxygen tension and (*rabbit*), 65, 256
vagus escape affected by (*cat*), 61, 186
**Hair**, nerve impulses with stimulation of (*crab*), 71, xii
**Haldane gas analysis apparatus**, modification of, 91, 8*P*
safety device for, 84, 23*P*
simplified, 85, 38*P*
**'Handshake reflex'**, decerebrate preparation and (*cat*), 73, 16
**Hare**, sympathetic vaso-dilatation in skeletal muscle, 88, 343
**Head stimulation**, pseudo-pregnancy induced by (*rat*), 88, 361
**Hearing acuity**, left-handedness effect on (*man*), 96, 48*P*
**Hearing**, alternating current stimulus and 'frequency doubling' in (*man*), 90, 3*P*
bone conduction in normal (*man*), 94, 14*P*
cochlea stimulation with alternating current effect on (*man*), 89, 113
**Hearing**, normal and electrical stimulation comparison on (*man*), 89, 123
phase change effect on (*man*), 86, 64*P*
resonance theory of, 81, 15*P*
history of, 66, xix
round-window function in (*man, cat*), 99, 76
tensor tympani muscle function in (*cat*), 81, 25*P*
**Heart, acetylcholine.** *See* **Heart, acetylcholine**
activated charcoal effect on (*frog*), 73, 9*P*
adenyl compounds action on (*rabbit*), 80, 350
adrenaline action with cocaine on (*cat*), 71, 183
and ions effect on (*frog, rabbit*), 71, 431
alcohol action on (*frog*), 62, vi; 63, 19
amines related to adrenaline action on (*mammal*), 95, 491
amino-acids used by (*frog*), 72, 458; (*H-L*), 86, 1
by aglycaemic (*H-L*), 82, 18*P*
anaerobic metabolism of (*frog*), 75, 321
apex, rotatory movements of (*mammal*), 96, 164
arecoline action on (*rabbit*), 70, 458
aseptic, insulin and sugar usage by (*rabbit*), 63, 242
atropine-acetylcholine antagonism on (*frog*), 61, 547
beat. *See* **Heart beat**
block, adenine compounds assayed by action on (*guinea-pig*), 72, 289
adenosine action on (*guinea-pig*), 67, xxxv
coronary vessel ligature influence on (*dog*), 81, 70
heart extract producing (*mammal*), 67, xiv
vitamin B and (*pigeon*), 68, i
blood vessels. *See* **Coronary vessels**
brain acetone extract effect on (*rabbit*), 85, 404
calcium action on (*frog*), 66, 209, 346
on isometric response of (*frog*), 61, 484
carbohydrate metabolism of (*frog*), 72, 444; 75, 311
affected by mechanical factors (*rat H-L*), 99, 212
in anaerobiosis of (*frog*), 80, 457
insulin action on (*H-L*), 77, 371
chamber (*frog*), 67, xxv
choline esters action on (*frog*), 79, 258
circuit, isolated, 92, 2*P*
citrate action on (*frog*), 66, 348

Heart, cocaine action with tyramine and adrenaline on (*H-L*), 71, 170
conducting tissue in, 81, 2*P*
conduction rate, Purkinjé tissue and (*mammal*), 76, 215
contraction, coronary blood flow affected by (*rabbit*), 61, 623
coronary blood flow with activity of (*H-L*), 67, 89
creatine changes in aglycaemic (*cat*), 91, 323
cyclohexylalkylamines action on (*cat*), 97, 457
defibrinated blood effect on (*H-AL*), 79, 205
diastolic volume and oxygen consumption of (*dog*), 62, 251
and work of (*tortoise*), 65, 148
differential paralysis of nerve endings and muscle in (*frog*), 62, 88
drug synergism on (*frog*), 63, 19
efficiency, arterial resistance relation to (*tortoise*), 72, 256
rate of beat and, 63, 259
electrical and mechanical response of (*frog*), 67, xxxi; 69, 316
electrical response and metabolism of (*frog*), 84, 433
enzyme poisons action on (*frog*), 89, 316
ether action on (*H-L*), 78, 266
excitatory disturbance evolution with stimulation of (*frog*), 90, 76*P*
extracts, heart affected by (*mammal*), 67, xiv
failure, pulmonary oedema relation to (*cat, H-L*), 75, 293
fat metabolism of (*frog*), 72, 455
fat utilization by (*H-L*), 86, 11
glycogen, blood sugar relation to (*rat H-L*), 99, 210
content of (*rat*), 82, 468
distribution in chambers of (*frog*), 100, 339
perfusion effect on (*frog*), 72, 459
high-frequency field effect on (*frog*), 90, 33*P*
histamine liberation by (*H-L*), 86, 431
liberation by curare action on (*H-L*), 95, 155
production by (*H-AL, H-L*), 92, 344
inositol metabolism affected by cyanide on (*dog*), 86, 21*P*
insulin action in hypo- and hyperglycaemia on respiratory exchanges of (*H-L*), 77, 365
action on glycogen of, 76, 6*P*
and glucose action on (*dog*), 65, 42
and glucose usage by (*rabbit*), 63, 242
Heart, iodoacetate poisoning effect on aerobic metabolism of (*frog*), 99, 335
isolated. *See* Isolated heart
lactate effect on, 84, 55*P*
load effect on contraction of (*frog*), 61, xix
lung glycogen usage in aglycaemia by (*H-L*), 94, 340
lung preparation. *See* Heart-lung preparation
'lysocithin' and cobra venom action on (*cat*), 94, 214
metabolism. *See* Cardiac metabolism
methoxy-phenylethylamines action on (*mammal*), 76, 229
morphothebaine-dimethylether action on (*frog, rabbit*), 100, 70
muscle. *See* Cardiac muscle
output. *See* Cardiac output
oxygen consumption of (*dog*), 63, 302; (*frog*), 66, 185; (*H-AL*), 79, 210
insulin action on (*dog*), 62, 345
and venous pressure in (*dog*), 65, 42
oxygen pressure effect on metabolism of (*frog*), 77, 432
pacemaker, activity of (*dog*), 75, 28*P*
perfusion apparatus for (*mammal*), 72, 21*P*
phosphagen changes with activity of (*frog, tortoise*), 75, 332
in anaerobiosis of (*frog*), 72, 25*P*
in functioning of (*frog*), 74, 7*P*
phosphate metabolism in normal and asphyxiated (*mammal*), 91, 314
phosphorus compounds in (*guinea-pig*), 68, 207
pituitrin action on (*mammal*), 76, 150
potassium output with vagus stimulation on (*tortoise*), 86, 37*P*
premature beat effect on rhythm of (*cat*), 90, 11*P*
protein metabolism of (*frog*), 72, 456
pump replacement of (*dog*), 78, 186
Purkinjé tissue and refractory period of (*mammal*), 76, 201
rate. *See* Heart rate
refractory period and Purkinjé tissue of (*mammal*), 76, 201
diastolic filling effect on (*frog*), 68, 441
respiratory exchanges, insulin action in diabetes on (*H-L*), 81, 153
measurement of (*frog*), 72, 462
respiratory quotient, blood carbon dioxide changes effect on (*H-L*), 81, 45*P*
perfusion fluids effect on (*frog*), 72, 454
under aglycaemic conditions (*dog*), 80, 179

**Heart**, resting metabolism of (*frog*), 66, 203; 68, 415
rhythm, vagus action on (*cat*), 76, 9*P*
sino-auricular conduction with nerve stimulation (*Scyllium*), 69, 29
S-methyl iso-thiourea sulphate effect on (*rabbit*), 100, 479
sounds, mitral stenosis and (*man*), 67, xviii
stroke volume and index of (*women*), 62, 104
metabolic rate relation to (*man*), 66, 149
sympathetic tone on (*dog*), 61, 221
temperature, bowel compared with (*Xenopus*), 71, 163
coronary flow relation to (*H-L*), 67, 302
Thebesian vessels and blood supply to (*H-L*), 73, 36
tonics, action of (*dog*), 64, 365
vagal inhibition affected by eserine and atropine on, 80, 25*P*
latent period (*cat*), 82, 214
vago-mimetic drugs action with section of A-V bundle (*rabbit*), 70, 458
vagus and calcium action on (*frog*), 65, iii
vagus inhibitory action during acceleration of (*cat*), 82, 222
vagus single volley effect on (*cat*), 82, 211
volume, anoxaemia effect on (*dog*), 61, 297, 588
carotid sinus reflex effect on (*dog*), 69, xxix
coronary blood flow and drugs affecting (*dog*), 64, 191
oxygen usage and (*dog*), 63, 299
*p*H effect on (*dog*), 61, 297
weight, age effect on (*mammal*), 66, xi
carbon monoxide effect on (*mouse*), 77, 8*P*
oxygen consumption relation to (*frog*), 66, 192
**Heart, acetylcholine** action on (*frog*), 64, 123
action with nerve development in embryonic (*Fundulus*), 84, 20
-atropine antagonism on (*frog*), 61, 547
concentration and action on (*frog*), 61, 532
content with vagus stimulation to (*frog*), 82, 140; (*frog, rabbit*), 82, 282
destruction in (*frog*), 64, 127
graded action on (*cat*), 64, xii
and ions effect on (*frog, rabbit*), 71, 431
and methylene blue antagonism in (*frog*), 62, 160
store and vagal volleys effect on (*cat*), 82, 248
**Heart beat**, coronary circulation affected by (*mammal*), 74, 3
**Heart beat**, creatine action on (*Xenopus*), 90, 1*P*
ectopic, barbitone action on (*man*), 81, 390
inhibitory effect of two vagal volleys (*cat*), 82, 242
nucleic acid derivatives action on (*rabbit*), 74, 147
single vagal volley effect on rhythm of (*cat*), 82, 211
sugars and insulin action on (*frog*), 83, 285
sympathetic nerve discharge relation to (*mammal*), 74, 128
thyroid effect on metabolic rate of (*rat*), 74, 404
**Heart-lung preparation**, adrenaline action on coronary circulation in, 68, 328
amino acid usage by, 82, 18*P*; 86, 1
blood capacity of lungs in, 65, 424
blood distribution in coronary arteries in, 67, 94
blood sugar relation to glycogen of (*rat*), 99, 210
cardiac cycle effect on coronary flow in, 79, 317
clamping effect on coronary flow and pressure in, 79, 321
cocaine with tyramine and adrenaline action on, 71, 170
coronary artery elasticity in, 73, 421
coronary circulation in, 68, 324
affected by heart rate and temperature in, 67, 301
with blood pressure changes in, 65, 360
coronary flow relation to diastole in, 73, 411
with blood pressure changes in, 64, 341
diabetic, insulin action on respiratory exchanges of, 81, 153
diastolic volume and oxygen consumption in, 62, 251; 63, 302
drugs on coronary flow in, 64, 187
drugs on tone and coronary flow in, 64, 365
ether action on, 78, 266
fat utilization by, 86, 11
fibrillation effect on coronary flow in, 67, 92, 312
histamine production in, 86, 431; 92, 344; 95, 155
innervated, 61, 215
insulin action on, 62, 341
on carbohydrate metabolism of, 77, 371
intrathoracic pressure effect on cardiac output of, 69, 247
negative pressure effect on, 63, 81
*p*H on heart volume in, 61, 297
pulmonary oedema in, 61, 98; (*cat*), 75, 288

**Heart-lung preparation**, pulse pressure effect on coronary flow in, 73, 405
respiratory exchange measurement in, 65, 36
respiratory quotient of, 65, 42
sugar and lactate usage by, 80, 21
Thebesian vessels and coronary circulation in, 73, 36
**Heart-nerve preparation** (*Scyllium*), 69, 34
**Heart-oxygenator preparation** (*dog*), 79, 199
**Heart rate**, acetylcholine graded action on (*cat*), 64, XII
adenylic acid and adenosine action on (*mammal*), 68, 222; (*man*), 81, 10*P*
alkali effect on (*cat*), 62, XXVIII
amplitude of contraction related to (*rabbit*), 70, 455
aortic distension affecting (*dog*), 62, 337
aortic pressure and reflex control of (*dog*), 61, 268
asphyxia effect with age on (*rabbit*), 93, 90
atropine effect after sympathectomy on (*dog*), 95, 439
cardiac nerves antagonism on (*mammal*), 83, 332
central chemical control of (*cat*), 67, XXI
coronary blood flow affected by (*rabbit*), 61, 618; (*H-L*), 67, 305
relation to (*dog*), 64, 346
efficiency of heart varying with (*dog*), 62, 259
exercise and control of (*dog*), 83, 313
exercise and temperature effect on (*mammal*), 77, 58
extra-cardiac pressure effect on (*dog*), 62, 331
glucose infusion rate effect on (*dog*), 91, 157
heat effect with other factors affecting (*man*), 85, 39*P*
insulin action on (*frog*), 82, 154
intracranial pressure effect on (*cat*), 98, 442
intra-ventricular pressure effect on (*dog*), 62, 333
oxygen consumption relation to (*frog*), 66, 191
pH effect on (*dog*), 61, 302
reflex and central regulation of (*dog*), 61, 315
reflex regulation of (*dog*), 62, 330
refractory period relation to (*mammal*), 74, 13*P*; (*rabbit*), 76, 207
saline effect on (*frog*), 68, 383
staircase phenomenon relation to (*frog, rabbit*), 75, 6
**Heart rate**, sympathectomy effect in rest and exercise on (*dog*), 87, 345
on exercise and emotion action on (*dog*), 95, 454
and vagotomy effect on (*dog*), 89, 4*P*
temperature change affecting (*frog*), 70, XL; 71, 145; (*Xenopus*), 71, 158; (*rat*), 75, 36*P*; (*frog*), 75, 34
umbilical cord clamping in foetus, effect on (*sheep*), 90, 25*P*
ventricular amplitude variation with (*frog*), 78, 305
work per beat variation with (*tortoise*), 65, 155
*See also* **Pulse rate**
**Heat**, heart rate affected by other factors with (*man*), 85, 39*P*
leucocyte count affected by (*man*), 87, 338
loss, high altitude effect on (*man*), 77, 28*P*
room temperature relation to (*man*), 84, 17*P*
lung air tubes affected by (*man*), 87, 17*P*
measurement of radiant, 70, XV
physiological reactions to (*man*), 84, 279
production. *See* **Heat production**
spleen, denervated, reaction to (*dog*), 87, 194
water-balance affected by (*man*), 84, 410
water intake effect on physiological reactions to (*man*), 86, 204
**Heat production** measurement, calibration of, 72, 24*P*
nerve, aerobic and anaerobic (*frog*), 76, 170
analysis of (*frog*), 71, 136; (*crustacean*), 77, 111
resting (*crustacean*), 77, 134
stimulation rate effect on (*frog*), 63, 130; 80, 444
plain muscle (*snail*), 69, 446
skeletal muscle, analysis of, 69, 67, 81; (*tortoise*), 61, 255; (*frog*), 75, 273
contraction (*frog*), 72, 6
indirect stimulation effect on (*frog*), 67, 372
negative phase (*frog*), 77, 104
oxygen consumption relation to (*frog*), 98, 216
plurisegmental innervation and (*frog*), 70, 206
relaxation (*frog*), 72, 6
shortening effect on (*frog*), 75, 264
stretch and initial load effect on (*frog*), 74, 456
tension development and maintenance comparison with (*frog*), 80, 213
thyroxine effect on (*dog*), 74, 384

**Heat stroke**, blood changes in (*man*), 70, xxxviii
**Heat-tension ratio**, submaximal stimulation of muscle effect on (*frog*), 70, 195
relation in muscle (*dogfish*), 62, 156
**Heat of activation**, visual purple decomposition and, 93, 32
**Heating systems**, comparison of (*man*), 64, 1
**Hecht's scheme**, retinal response and (*eel*), 64, 288
**Hedgehog**, olfactory reactions in brain, 100, 459
**Hen monocytes**, cell division, 90, 23*P*; 91, 22*P*
**Henle's loop**, anti-diuretic hormone relation to (*vertebrates*), 99, 254
**Hensen's cells**, function in hearing of (*guinea-pig*), 73, 8*P*
**Heparin**, anaphylactic shock and liberation of (*dog*), 99, 456
anticoagulant action of, 90, 379
azo dyes as anticoagulants comparison with (*rabbit*), 80, 90
liver glycogen recovery affected by (*cat*), 76, 433
red blood cell permeability and (*rabbit*), 61, 114
white thrombi formation affected by (*mammal*), 92, 20
**Hepatectomy**, adrenaline action on blood-sugar after (*rabbit*), 93, 162
glycotropic factor action after (*rabbit*), 92, 190
unanaesthetized preparation with (*rabbit*), 91, 413
**Hepatic artery** occlusion, liver glycogen recovery affected by (*cat*), 76, 418
portal pressure relation to (*cat*), 75, 251
**Hepatic circulation**, respiration effect on (*cat*), 89, 160
**Hepatic vein**, pituitrin action on (*dog*), 76, 165
portal pressure relation to (*cat*), 75, 251
sphincter action of (*P-AL-L4*), 74, 365
**Heredity**, gonadotrophic hormone action on vitamin-B deficient adult rat affected by, 96, 267
**Hering-Breuer reflex**, nerves concerned in (*dog*), 77, 12
presence in birds of (*fowl*), 97, 525
strychnine action on (*rabbit*), 78, 85
**Herpes zoster**, antidromic impulses and (*cat*), 62, xix
**Heterochromism**, single nerve-muscle preparation and (*frog*), 76, 105
strychnine curarization effect relation to (*frog*), 88, 338
**Hexose phosphate**, muscle containing (*fly*), 80, 233
tumour glycolysis and changes in (*mouse*), 74, 199
**Hibernation**, respiratory quotient during (*mammal*), 67, xxi; (*bat*), 82, 465
**High altitude**, alveolar air affected by (*man*), 96, 34*P*
alveolar air composition at (*man*), 82, 481
blood changes effected by (*man*), 71, 47
blood oxygen saturation at (*man*), 78, 21*P*
cyanosis lack at (*man*), 76, 2*P*
heat loss affected by (*man*), 77, 28*P*
polymorphonuclear-lymphocyte ratio affected by (*man*), 78, 335
**High-frequency alternating current**, nerve excitation with (*frog*), 96, 202
calibration, living muscle heat and (*frog*), 81, 364
stimulation, nerve electric response with (*frog*), 83, 394
nerve excitatory state 'inhibition' by (*frog*), 83, 407
nerve heat production with (*frog*), 83, 383
nerve refractory state and (*frog*), 83, 416
**Hill-Hartree curve analysis**, criticism of, 69, 67, 81
**Hind-limb**. *See* **Limb**
**Hirudin**, thrombin reaction with, 64, 47
**His bundle**, electrocardiogram after coronary vessel ligature and partial section of (*dog*), 81, 71
**Histamine**, acetate vaso-dilatation comparison with (*mammal*), 66, 372
adrenalectomy effect on blood (*rabbit*), 99, 241
adrenaline response facilitated by carbon dioxide, 81, 2*P*
adrenaline reversal effected by (*mammal*), 62, 60
alkali sensitization of plain muscle to (*cat*), 62, 86
anaphylactic shock and release from organs of (*guinea-pig*), 90, 34*P*; 95, 393
antidromic vasodilatation and (*cat*), 62, xix
assay, method of (*guinea-pig*), 100, 149
bacterial production in asthma of (*man*), 70, xxxi
blood cells and plasma distribution of (*mammal*), 90, 356
blood clotting effect on distribution of (*mammal*), 96, 130
blood and determination of, 95, 476
blood vessels affected by (*rabbit*), 63, 211

**Histamine**, capillary tone and action of (*cat*), 62, 109
carbon dioxide effect on renal vessel response to (*P-L-K*), 86, 13*P*
circulation affected by (*man*), 65, XXII
cobra venom action on tissue liberation of (*mammal*), 94, 187
coronary artery and adrenaline action after (*ox*), 64, 75
coronary circulation affected by (*mammal*), 74, 12
curare action on muscle releasing (*dog*), 95, 148
denervated muscle response to acetylcholine with (*mammal*), 70, 132
estimation by action on fowl's rectal caecum, 85, 3
in blood of (*mammal*), 89, 257
flare, capillary activity in (*man*), 64, XXXII, XXXVI
'free' and 'bound' (*mammal*), 94, 11*P*
gastric absorption of sulphate affected by (*cat*), 99, 156
gastric acidity primary and 'secondary' resulting from (*cat*), 97, 312
gastric contents concentration affecting secretion response to (*cat*), 99, 154
gastric juice, buffering power of (*man*), 73, 433
gastric mucosa and content of (*dog*), 79, 235
gastric secretion, blood carbon dioxide effect on (*dog*), 75, 352
heart muscle production of (*H-L*), 86, 431; (*H-AL, H-L*), 92, 344
hypotension, factors affecting (*dog*), 78, 54
inactivation by different tissues of (*dog*), 70, 349
intestine contractions with (*cat*), 61, 276
intra-ocular pressure affected by (*dog*), 71, 13
knee jerk affected by (*cat*), 88, 485
liver extract and content of (*ox*), 62, 400
lung affected by snake venom and liberation of (*mammal*), 90, 257
lung destruction of (*mammal*), 67, 256
lung extract and content of (*ox*), 62, 405
lung and kidney reaction to (*P-L-K*), 77, 310
nervous control of liberation of (*cat*), 71, 31
over-ventilation effect on blood pressure response to (*cat*), 70, 314
peptone liberation from lung of (*mammal*), 90, 288
placental blood vessels affected by (*man*), 93, 136
**Histamine**, plain muscle contraction and release of (*mammal*), 96, 139
plasma-red blood cell distribution of (*dog*), 85, 38*P*
poisoning, blood cell changes in (*cat*), 68, V
portal circulation affected by (*P-AL-Li*), 74, 363
pulmonary circulation in different species affected by (*mammal*), 70, 1
pulmonary oedema production by (*cat H-L*), 75, 297
pulmonary vessels affected by (*P-L*), 77, 149; (*cat*), 80, 70
reactive hyperaemia and liberation of (*dog*), 85, 13*P*
and relation of (*mammal*), 100, 147
renal destruction of (*dog, rabbit*), 86, 53*P*
respiratory tract affected by (*mammal*), 76, 347
shock, vessels concerned in (*mammal*), 61, 282
skeletal muscle contraction and release of (*dog*), 85, 409; 96, 240
oxygen usage affected by (*dog*), 99, 300
vaso-motor response to (*mammal*), 88, 350
skin injury and liberation of (*man*), 62, XI
snake venom liberation from lung of (*mammal*), 90, 257
spleen and isolation of (*mammal*), 68, 97
splenic contractions affected by (*cat*), 74, 306
subarachnoid space saline absorption affected by (*dog*), 93, 423
substance P separate from (*mammal*), 83, 4
tissue extraction by electrodialysis, 77, 33*P*
toxin liberation from lung of (*mammal*), 90, 280
traumatic shock and production of (*cat*), 93, 58*P*
uterine reaction in pregnancy to (*man*), 79, 85
vaso-dilator action of (*mammal*), 61, 190
white blood cells and distribution of (*mammal*), 90, 485
**Histaminase**, guanidine action on, 95, 30*P*
lung anaphylactic shock fluid inactivated by (*guinea-pig*), 83, 3*P*
properties of, 70, 352
**Histological continuities** and mutations, 90, 71*P*
***Holothuria***, chronaxie and alpha and gamma curves in slow muscle, 78, 381
prolonged twitch of muscle, 62, XXI
**Hordenine**, central nervous system affected by compounds of (*cat*), 92, 422

Hordenine, compounds, skeletal muscle contraction affected by (*cat*), 93, 201
methiodide, sympathetic ganglion affected by (*cat*), 83, 123
Horse, choline ester in kidney, 84, 32*P*
haemoglobin oxygen dissociation curve, 71, 261
pituitary gland gonadotrophin preparation, 96, 4*P*
serum, anti-diuretic substances in, 96, 298
capillary permeability and (*frog*), 63, 249
tissue extracts depressor substance, 72, 74
vitreous body composition, 68, 155
Hue discrimination, eye adaptation in relation to (*man*), 88, 167
normal and abnormal colour vision relation to (*man*), 88, 176
Hydrocyanic acid, respiratory movements affected by (*mammal*), 69, 124
sensory end-organ affected by (*frog*), 71, 94
Hydrogen ion concentration. *See* pH.
Hydroxyphenylalanine derivatives, tadpole metamorphosis affected by, 73, 215
Hyoscine, uric acid excretion affected by (*man*), 62, v
Hyperaemia, local leucocytosis and (*man*), 65, v
skeletal muscle contraction and (*dog*), 85, 382
skin acidity during (*cat*), 64, 398
temperature sensations affected by (*man*), 69, 99
Hyperglycaemia, anaesthetics action on (*rabbit*), 78, 370
atropine action on different types of (*rabbit*), 79, 239
heart respiratory exchanges with insulin in (*H-L*), 77, 369
iodoacetate causing (*rabbit*), 80, 360
liver glycogen relation in decerebrate preparation to (*rat*), 78, 205
mid-brain transection effect on (*mammal*), 91, 21*P*
toxic effects of (*dog*), 87, 85*P*
Hyperpnoea. *See* Overventilation
Hypertensin, renin and formation of, 98, 290
Hypertension, renal ischaemia and time course of (*dog*), 95, 45*P*
Hypertonic injection, water shift in body with (*cat*), 73, 184
plasma, red cell volume changes in (*rabbit*), 85, 445
saline, muscle chloride distribution affected by (*frog*), 90, 171
Hypertonic solutions, red blood cell volume with (*rabbit*), 73, 292
stomach emptying rate affected by (*dog*), 79, 438
Hyperventilation. *See* Overventilation
Hypnotics, water absorption affected by (*rat*), 76, 294
Hypochromat, hue discrimination in (*man*), 88, 186
yellow sensation and anomalous trichromatism in (*man*), 91, 36
Hypodynamic heart, oxygen consumption of (*frog*), 66, 203
Hypogastric nerve, afferent discharges from bladder in (*dog*), 89, 7
bladder function and action of (*cat*), 86, 404
inferior mesenteric ganglion stimulation effect on (*cat*), 91, 298
Hypoglossal nerve, afferent fibres in (*cat*), 94, 1*P*
Hypoglycaemia, heart respiratory exchanges with insulin in (*H-L*), 77, 372
insulin and post-pituitary extract antagonism on (*rabbit*), 100, 112
Hypophysectomy, adrenaline action on blood sugar and liver and muscle glycogen affected by (*rabbit*), 87, 1
adrenaline mobilization of muscle glycogen affected by (*cat*), 86, 38*P*
blood calcium and phosphorus affected by (*rat*), 92, 124
blood lactate affected by adrenaline after (*rabbit*), 88, 417
corpus luteum development after (*rabbit*), 70, 38
dehydration effect following (*rat*), 90, 119
glycotropic factor action following (*rabbit*), 92, 199
on insulin sensitivity following (*rabbit*), 94, 40
insulin action affected by (*rabbit*), 80, 196
on blood sugar affected by (*rabbit*), 83, 160
insulin content of pancreas affected by (*rat*), 98, 419; 100, 104
ketosis in diabetes affected by (*dog*), 77, 92
liver glycogen storage and utilization in young affected by (*rabbit*), 88, 401
luteal function maintenance by oestrin after (*rabbit*), 90, 435
melanophores affected by drugs after (*frog*), 90, 51*P*
ovary affected by gonadotropic hormones after (*rabbit*), 90, 127
ovulation affected by (*rabbit*), 67, 386

**Hypophysectomy**, ovulation induced after (*rabbit*), 71, 36
by anterior pituitary extract following (*rabbit*), 69, xxiii
by pregnant urine after (*rabbit*), 72, 15*P*
with pregnant urine extract after (*rabbit*), 71, 40
phlorrhizin diabetes affected by (*dog*), 77, 81
pregnancy affected by (*cat*), 75, 23
pregnancy maintenance following (*rabbit*), 90, 145.
with oestrin after (*rabbit*), 92, 11*P*; 95, 83
with progestin following (*rabbit*), 86, 415
by P.U. injection after (*rabbit*), 87, 75*P*
pregnancy prolongation by progesterone and oestrogens after (*rabbit*), 97, 517
retro-pharyngeal route for (*cat*), 75, 24
skeletal muscle glycogen affected by adrenaline after (*rat*), 88, 195
spontaneous polyuria occurring after (*dog*), 98, 193
sugar tolerance affected by diet after (*rabbit*), 91, 447
sugar utilization affected by pancreatectomy and (*cat*), 89, 32*P*
testosterone action on ovary following (*mouse*), 93, 16*P*
thyreotropic hormone action following (*rat*), 83, 17
urine secretion affected by (*rat*, *cat*), 91, 202
uterine reaction to corpus luteum extracts following (*rabbit*), 84, 296
to oestrin and oxytocin following (*rabbit*), 84, 149
to oxytocin following abortion due to (*rabbit*), 86, 177
water diuresis affected by (*cat*), 81, 172
following (*dog*), 68, 305
**Hypothalamus**, cardiac irregularities from excitation of (*cat*), 81, 382
cortical control and emotional response (*cat*), 67, xxvii
gastric motility affected by stimulation of (*cat*), 81, 218
**Hypotonic plasma**, red cell volume affected by, 77, 181
red cell volume changes in (*rabbit*), 85, 444
**Hypotonic saline**, gill tissue respiration affected by (*eel*), 77, 277
**Hypotonic solutions**, red blood cell volume with (*rabbit*), 73, 267
stomach emptying rate affected by (*dog*), 79, 440
**Hysterectomy**, oestrus cycle affected by (*ferret*), 78, 80
**Ileum**, glucose concentration effect on diffusion through (*rabbit*), 69, 109
pressure effect on contractions of (*mammal*), 68, 69
tension-length curve of (*cat*), 61, 276
**Iminazole ring**, histamine inactivation and, 70, 360
**Impedance angle**, factors affecting (*man*, *cat*), 85, 23*P*
portable apparatus for measuring (*man*), 83, 1*P*
**Impedance**, muscle contraction affecting (*frog*), 89, 132
skin phase angle and (*man*), 93, 356
**Inanition**, adrenaline and ascorbic acid content of adrenal gland affected by (*guinea-pig*), 83, 480
**Indicator yellow**, absorption spectrum of (*frog*), 89, 348
thermal decomposition of, 93, 36
transient orange relation to (*frog*), 94, 399
**Indirect calorimetry**, fallacies of (*man*), 77, 1*P*
**Inexcitability**. *See* **Reversible inexcitability**
**Infection**, adrenal gland weight in pregnancy affected by (*rat*), 77, 167
**Inferior mesenteric ganglion**, excitability states following pre-ganglionic stimulation of (*cat*), 95, 464
impulse transmission through (*cat*), 91, 296
**Inferior vena cava**, adrenaline action on (*mammal*), 77, 174
**Inflammation**, skin acidity and (*cat*), 64, 401
temperature sensations affected by (*man*), 69, 99
**Inflation reflex**, reversal of (*dog*), 94, 501
**Infra-red rays**, ventilation and, 75, 8*P*
ventilation of room and (*man*), 74, 1*P*
**Inhibition**, antidromic volley on sympathetic ganglion and (*cat*), 88, 29
ciliary ganglion and (*mammal*), 89, 107
contracting muscle causing (*cat*), 64, 199
crossed extensor reflexes and (*cat*), 67, 113
excitation action currents affected by (*crayfish*), 93, 178
extensor reflexes in fore-limb and (*cat*), 65, 308
flexion reflexes 'interference' and (*cat*), 62, 98
inferior mesenteric ganglion and (*cat*), 95, 468
motor-unit fields and (*cat*), 66, 109
nerve and conditions for (*frog*), 80, 441
plain muscle peripheral mechanism and (*crayfish*), 93, 173

**Inhibition**, retina off-effect and (*frog*), 91, 131
retina and optic nerve action potentials and (*frog*), 83, 365
skeletal muscle peripheral preparation showing (*cat*), 76, 11*P*
single shock stimulus and crossed extensor reflex (*cat*), 77, 263
sympathetic ganglion direct fibres and (*cat*), 93, 86
and occurrence of (*cat*), 85, 222
sympathetic lumbar ganglion showing (*cat*), 86, 274
sympathetic-vagus interaction on stomach and (*cat*), 73, 142
supraspinatus tendon jerk and (*cat*), 63, 74
ventral nerve root potentials and (*frog*, *cat*), 92, 298
**'Initial heat of contraction'**, analysis of (*tortoise*), 61, 255
**Initial heat production**, analysis of (*frog*), 72, 1
delayed heat production relation to (*frog*), 75, 279
nerve and (*frog*), 62, 356; 63, 136
and frequency of stimulation effect on (*frog*), 83, 390
and magnitude of (*crustacean*), 77, 126
and oxygen lack on (*frog*), 63, 284
recovery heat relation in aerobic and anaerobic muscle (*frog*), 82, 514
revised analysis in muscle of (*frog*), 79, 492
shortening effect on muscle (*frog*), 75, 264
**Injury**, adenine compounds liberated by (*rabbit*), 72, 306
metabolic response to (*rat*), 89, 53*P*
**Injury current**, depolarization of nerve and (*crustacean*), 65, xxvii
skeletal muscle and nature of (*frog*), 66, 62
**Injury discharge**, cerebral cortex action potentials and (*rabbit*), 81, 446
**Injury potential**, action current and effect on (*crustacean nerve*), 67, 328
oxidative nature of (*crustacean nerve*), 67, 335
plain muscle conduction decrement and (*Mytilus*), 90, 251
reversal by saponin of (*frog*), 87, 67*P*
skeletal muscle potassium equilibrium and (*frog*), 100, 34
**Inosine triphosphate**, activity in relation to A.T.P. (*mammal*), 80, 345
**Inosinic acid**, activity in relation to A.T.P. (*mammal*), 80, 345
**Inositol**, heart metabolism and (*frog*), 75, 317
metabolism, cyanide action on heart and (*dog*), 86, 21*P*
**Inspiration**, blood pressure in brachial and digital arteries affected by (*man*), 95, 250
phrenic nerve action currents with (*rabbit*), 66, 86
respiratory cycle affected by resistance to (*dog*), 80, 269
vagus afferent impulses in (*cat*), 79, 335
vaso-constriction reflex from deep (*man*), 86, 83
**Inspiratory resistance**, respiration affected by (*man*), 84, 162
**Insulin**, acetone production in liver affected by (*bat*), 62, 17
adrenal cholesterol action on (*rabbit*), 69, vii
affected by (*rabbit*), 70, 444
adrenalectomy effect on liver glycogen formation resulting from (*rabbit*), 82, 407
adrenaline action on muscle glycogen with (*cat*), 70, 76
on muscle and liver glycogen with (*rat*), 80, 314
adrenaline content of adrenal glands affected by (*rat*), 80, 309
anterior pituitary extract antagonism to (*rabbit*), 93, 63
assay, factors affecting accuracy of (*rabbit*), 65, xx
blood pressure affected by (*frog*), 82, 154
blood sugar affected by (*pig*), 64, xxxi
on pancreas control of output of (*cat*), 79, 416
in toxæmia affected by (*rabbit*), 75, 392
cardiac metabolism in agiycæmia affected by (*dog*), 80, 183
diabetic heart respiratory exchanges affected by (*H-L*), 81, 153
diabetogenic hormone action on content in pancreas of (*dog*), 97, 200
disappearance of intravenously injected (*rabbit*), 97, 417
embryonic blood sugar affected by (*chick*), 72, 420
ephedrine antagonism to (*rabbit*), 68, 253
exercise effect on sensitivity to (*man*), 93, 151
fasting and diet effect on content in pancreas of (*rat*), 97, 107
fat diet effect on response to (*rabbit*), 81, 35
foetal blood sugar response to (*sheep*, *goat*), 92, 459

**Insulin**, foetal carbohydrate metabolism affected by (*dog*), 92, 219
glucose usage by aseptic heart and (*rabbit*), 63, 242
glucosone action compared with (*mammal*), 66, 287
glycogen distribution affected by (*rabbit*), 79, 203
glycotropic factor effect after hepatectomy on action of (*rabbit*), 92, 190; 94, 40
heart beat affected by sugars and (*frog*), 83, 285
heart glycogen affected by (*rat*), 82, 472
storage with, 76, 6*P*
heart-lung preparation and, 65, 42
heart rate affected by (*frog*), 82, 154
heart respiratory exchanges in hypo- and hyperglycaemia with (*H.-L.*), 77, 365
hypoglycaemia, brain acetylcholine content affected by (*mouse*), 96, 6*P*
dihydroxyacetone and glyceric aldehyde action on (*mammal*), 61, XXXV
hypophysectomy effect on action of (*rabbit*), 80, 196
on diet action on sensitivity to (*rabbit*), 91, 447
on pancreatic (*rat*), 98, 419
hypophysectomy and pituitary extract action on pancreatic (*rat*), 100, 104
ketonuria and action of (*rat*), 64, XXIII; 65, 194
liver cell Golgi apparatus and (*mammal*), 62, 78
liver diastase affected by (*mammal*), 62, III
liver glycogen and (*dog*), 65, 56
affected by (*opossum*), 75, 29; (*cat*), 84, 65*P*; 87, 121
after hypophysectomy in young affected by (*rabbit*), 88, 413
in toxaemia affected by (*rabbit*), 75, 383
recovery after decapitation affected by (*cat*), 76, 430
liver sugar after (*rat*), 64, 265
nervous control of secretion of (*rabbit*), 70, I
oral administration of (*rabbit*), 72, 199
pancreatic insulin affected by administration of (*rat*), 100, 142
phosphotungstate, hypoglycaemic action on oral administration of (*rabbit*), 84, 362
pituitary extract effect on glycaemic response to (*rabbit*), 87, 13*P*
on peripheral action of (*cat*), 87, 15*P*
pituitary gland affected by (*rabbit*), 62, VII
relation to actions of (*rabbit*), 83, 157
**Insulin**, pituitrin antagonism to (*rabbit*), 62, VIII
effect on blood sugar and (*cat*), 64, 327
placental glycogen reaction to (*rabbit*), 67, 363
post-pituitary extract antagonism to hypoglycaemic action of (*rabbit*), 100, 112
preparation for oral administration (*mammal*), 70, 182
reaction in normal subjects to (*man*), 66, 400
red blood cell permeability and (*rabbit*), 61, 116
respiratory quotient of diabetic heart affected by, 79, 2*P*
serum potassium affected by (*cat*), 86, 225
skeletal muscle extract (cell-free) action on (*rabbit*), 94, 15*P*
skeletal muscle glycogen resynthesis affected by (*cat*), 70, II
sugar production in perfused liver and (*mammal*), 61, 506
thyroidectomy effect on actions of (*rabbit*), 86, 46
tonic action on heart of (*dog*), 64, 378
toxaemia affecting action of (*rabbit*), 75, 383
vagus control of secretion of (*mammal*), 73, 297
vagus section and action on blood sugar of (*rabbit*), 61, 579
**Intensity discrimination**, eye adaptation and (*man*), 86, 15
**Intermittence**, antidromic sensory fibre discharges and (*cat, frog*), 85, 84
**Internal environment**, constancy of, 67, XXII
**Interpolar length**, high-frequency A.C. stimulation of nerve affected by (*frog*), 96, 219
nerve excitation and (*frog*), 63, 380
**Interrenal body** (elasmobranch), adrenalectomised animal affected by (*cat*), 75, 419
**Intestinal movements**, feeding effect on (*dog*), 67, 313
**Intestinal mucosa**, electrolytes action on (*mammal*), 75, 433
**Intestinal obstruction**, nervous factor in death from (*cat*), 91, 16*P*
**Intestinal rhythm**, blood pressure affected by (*cat*), 74, 490
**Intestine**, adrenaline action affected by temperature of (*rabbit*), 92, 28*P*
adrenaline action on blood vessels of (*cat*), 69, 173; 80, 434

**Intestine**, anaerobiosis effect on contractions of (*mammal*), 85, 251
automomic drugs action on (*frog, Xenopus*), 71, IV
autonomic nerve stimulation effect on (*skate*), 83, 56
carbohydrate metabolism of (*mammal*), 85, 239
carbohydrates selective absorption by (*mammal*), 70, 404
choline esters in (*mammal*), 79, 276
cocaine action with adrenaline, ephedrine and tyramine on (*cat*), 71, 180
depressor extracts from (*mammal*), 83, 1
depressor substance from tissues action on (*rabbit*), 72, 75
ether action on (*cat*), 78, 263
exteriorization of (*dog*), 67, 212
gas tensions in (*mammal*), 67, VII
haematoporphyrin sensitization and light action on (*mammal*), 64, 31
histamine inactivation by (*dog*), 70, 351
large. *See* **Large intestine**
nerve stimulation and inhibition of (*rabbit*), 70, VI
oxygen lack effect on (*mammal*), 66, 239
parasympathetic action on (*Amphibia*), 75, 104
permeability, living and dead (*mammal*), 67, XVII
pitressin action on blood vessels of (*cat*), 70, 53
pressor substance in (*pig*), 66, 421
selective permeability of (*rabbit*), 69, 185
small. *See* **Small intestine**
splanchnic nerve stimulation effect on (*mammal*), 75, 480
stimulation, vasomotor reflexes and (*cat*), 65, 331
sympathetic vaso-dilatation in (*mammal*), 87, 264
water absorption rate from (*cat*), 81, 169
water diuresis in absence of (*cat*), 78, 458
**Intra-abdominal pressure**, respiration effect on (*man*), 79, 481
**Intracranial pressure**, heart rate affected by (*cat*), 98, 442
vitamin A deficiency effect on (*dog*), 99, 474
**Intrafusal fibres**, sensory nerve-endings in (*cat*), 78, 22
stimulus threshold to (*frog*), 72, 165
**Intra-ocular pressure**, blood pressure relation to (*cat*), 64, 80
colloid osmotic pressure and (*cat*), 64, 82
drugs affecting (*dog*), 71, 1
hypertonic solutions intravenously effect on (*cat*), 93, 430
**Intra-ocular pressure**, physico-chemical factors affecting (*P-AL-Eye*), 71, 268
venous pressure relation to (*dog*), 61, 409
**Intraperitoneal oxygen**, use of (*dog*), 64, XXXVIII
**Intrapleural pressure**, curarine action on (*mammal*), 91, 440
phrenic nerve action currents and (*rabbit*), 66, 93
**Intrapulmonary pressure**, respiratory reflex slowing and (*rabbit*), 88, 284
**Intrarenal pressure**, blood pressure changes effect on (*P-L-2K*), 87, 18*P*
cooling and 'reduction' of kidney substance effect on (2*P-L-2K*), 82, 27*P*
extrarenal pressure interaction with, 87, 77*P*
factors concerned in (*H-L-K*), 78, 9*P*
**Intrathoracic pressure**, air supply interruption effect on (*man*), 67, 191
blood capacity of lungs and (*dog*), 65, 424
pulmonary blood flow relation to (*P-L*), 69, 243
venae cavae volumes affected by (*mammal*), 79, 470
**Intravenous oxygen**, increased atmospheric pressure effect on utilization of (*mammal*), 84, 315
**Intravenous water**, diuresis resulting from (*mammal*), 78, 451
**Intraventricular pilocarpine**, gastric acidity affected by (*monkey*), 82, 4
**Intravesical pressure**, sensory nerve discharge associated with (*dog*), 89, 5
**Inulin**, muscle interfibre space volume measured by (*frog*), 99, 403
**Inulin clearance**, alimentary haemorrhage effect on (*man*), 99, 344
creatinine clearance comparison with (*dog, P-L-K*), 98, 97
newborn infant and, 99, 276
**Invertebrate**, carbonic anhydrase in marine, 80, 171
cholinesterase in plain muscle, 89, 368
nerve chronaxie with electrode distance, 84, 67
**Invertebrate muscle**, phosphagen in, 65, 18
thixotropic effect in (*Pecten*), 73, 4*P*
**Involuntary muscle**. *See* **Plain muscle**
**Iodide**, intestinal muscle and effect of (*rabbit*), 63, 102
intestine permeability to (*rabbit*), 69, 190
method of circulation rate measurement, errors in (*man*), 63, 162
oxygen consumption affected by (*dog*), 65. XXXIII
tadpoles and action of, 64, 250

Iodine, thyroid extract activity with content of (*mouse*), 67, 239
thyroid gland affected by lack of (*rat*), 95, 53*P*
secretion stimulated by (*dog*), 62, 200
Iodine value, body fats and (*man*), 72, 354
fat and lecithine effect on liver fat (*rat*), 75, 60
Iodoacetate, adrenaline and insulin actions on carbohydrate metabolism affected by (*rabbit*), 79, 296
anaerobic heart affected by (*frog, tortoise*), 75, 339
anaerobic heat production by muscle and (*frog*), 72, 439
auricle affected by cyanide with (*frog*), 89, 318
blood sugar affected by (*rabbit*), 75, 4*P*
cardiac metabolism affected by (*dog*), 91, 320
chromatophore contraction affected by (*Sepia*), 83, 14*P*
creatinephosphate synthesis in muscle with (*frog*), 78, 295
glutathione effect on anaerobic heart with (*frog*), 80, 468
heart aerobic metabolism affected by (*frog*), 90, 335
heart phosphagen changes with (*frog, tortoise*), 75, 339
heart usage of sugar and lactate affected by (*H-L*), 80, 30
hyperglycaemia, insulin action on (*rabbit*), 80, 363
intestine carbohydrate metabolism affected by (*mammal*), 85, 245
intestine contractions in asphyxia affected by (*mammal*), 85, 259
lactic acid metabolism in muscle with (*frog*), 75, 201
muscular contraction theories from heart affected by (*frog*), 78, 326
nerve activity affected by (*frog*), 76, 479
skeletal muscle impedance changes with (*frog*), 89, 144
initial heat of contraction with (*frog*), 72, 16
stretch response affected by (*frog*), 74, 448
twitch 'spreading-out' affected by (*frog*), 78, 107
subarachnoid water absorption from glucose solutions affected by (*dog*), 98, 185
submaxillary-gland slice metabolism affected by (*cat*), 92, 448
Iodoacetate, ventricle electrogram affected by (*frog*), 84, 439
Ionic equilibrium, diffusion rates and, 78, 11*P*
Ionization heat, haemoglobin and, 67, 288
Iris, drugs affecting blood vessels in (*rabbit*), 71, 5
Iron, absorption and excretion of oral and intravenous (*man*), 94, 143
Irradiated ergosterol, calcium and phosphorus excretion affected by (*rat*), 76, 321
parathyroidectomized animals affected by (*dog*), 69, xxxv
saliva calcium affected by (*dog*), 80, 98
Ischaemia, blood pressure reflex rise from muscle contraction during (*man*), 89, 372
histamine liberation in (*dog*), 85, 14*P*
histamine production in muscle with (*dog*), 85, 412
pulse increase reflex due to (*man*), 92, 169
sensory nerve impulses from muscle during (*cat*), 78, 36
skeletal muscle fibrillary twitchings with (*man*), 73, 5*P*
skeletal muscle glycogen and lactic acid affected by (*rabbit*), 75, 14*P*
Ischaemic kidney, blood pressure-raising substance secreted by (*dog*), 94, 281
Ischaemic pain, nerve-endings responsible for (*cat*), 78, 44
Islets of Langerhans, pancreotropic factor effect on (*rat*), 91, 355
Isoamylamine, blood sugar affected by (*rabbit*), 68, 253
Isobaric diuresis, Ringer comparison with glomerular and tubular (*P-L-K, dog*), 98, 343
Isochoric auricle, oxygen consumption of (*frog*), 68, 422
Isochronism, alpha substance chronaxie and (*frog*), 74, 259
curarization of muscle and (*frog*), 81, 113
law, single nerve-muscle preparation and (*frog*), 76, 102
Isodynamic equivalence, blood *p*H and (*rabbit*), 88, 1*P*
blood *p*H effect on oxygen consumption in relation to law of (*rabbit*), 91, 48
Isoelectric point, oxyhaemoglobin and (*sheep*), 71, 323
surface tension of colloidal solutions relation to, 92, 154
Isolated heart perfusion, cannula for (*rabbit*), 65, xxiii
stable preparation, (*P-H*), 77, 10*P*

**Isometric contraction**, calcium effect on cardiac (*frog*), 61, 484
force and speed relation in (*frog, tortoise*), 96, 50
pH changes and chemical processes occurring in (*frog*), 94, 461
muscle impedance changes in (*frog*), 89, 138
**Isometric heat coefficient**, absolute value of muscle (*frog*), 81, 361
plain muscle and (*snail*), 69, 449
**Isometric myograph**, construction of (*mammal*), 66, III
**Isometric muscle twitch**, cause of 'angle' in (*cat, frog*), 69, III
**Isorrheic diuresis**, Ringer comparison with glomerular and tubular (*P-L-K, dog*), 98, 346
**Isothermal chamber**, A.C. operated, 90, 35*P*
**Isotonic contraction**, force and speed relation in (*frog, tortoise*), 96, 47

**Jaundice**, bile acid metabolism in (*dog*), 64, VIII
blood pH in (*man*), 64, XXI
**Jejunum**, acidity of contents during stomach emptying (*cat*), 87, 380
afferent neurone segmental distribution (*cat*), 93, 112
electrolyte action on (*rabbit*), 63, 97
**Joint**, sympathectomy effect on dye diffusion into (*mammal*), 99, 167
**Joint movement**, pacinian corpuscle function in (*cat*), 68, 143

**Keith Lucas pendulum**, calibration of, 74, 428
**Ketogenesis**, anterior pituitary extract action on (*mammal*), 92, 102
**Ketogenic hormone**, identity of (*rat*), 82, 388
**Ketonaemia**, diet effect in pregnancy on (*sheep*), 94, 346
liver fatty infiltration in pregnancy and (*sheep*), 97, 241
pregnancy disease relation to (*sheep*), 97, 120
**Ketonuria**, anterior pituitary extract effect on (*rat*), 69, XIX, 82, 385
hormones acting on (*rat*), 64, XXII
insulin action in summer and winter on (*rat*), 65, 194
**Ketosis**, hypophysectomy effect on (*dog*), 77, 92
increased metabolism effect on depancreatization action on (*dog*), 97, 394
**Ketosis**, pancreatic and phlorrhizin diabetic action after hypophysectomy on (*dog*), 77, 92
**Kidney**, adenylic acid content of (*mammal*), 72, 292
adrenaline action on urine and blood flows of (*H-L-K*), 73, 151
anti-diuretic hormone excretion by (*rabbit*), 89, 88
arterial pressure change effect on oxygen consumption of (*P-L-K*), 96, 92
carbohydrate metabolism of (*P-L-K*), 80, 369
chloride threshold in (*man*), 67, 199
cholesterol content of (*rabbit*), 68, 282
choline action on respiration of slices of (*rat*), 85, 356
choline ester in (*horse*), 84, 32*P*
circulation rate in (*rabbit*), 74, 214
cooling effect on (*P-L-K*), 89, 198
creatinine concentration after intravenous injection in (*rabbit*), 79, 371
creatinine and urea excretion by (*rabbit*), 79, 359
cyanide action on (*P-L-K*), 74, 279
cyanol excretion by (*rabbit*), 80, 253
denervated, post-pituitary extract effect on water-diuresis in (*dog*), 84, 54*P*; 85, 40
water diuresis inhibition in (*dog*), 83, 341
denervation, diuresis effected by (*dog*), 68, 310
diabetic coma disorganizing effect on (*man*), 95, 36
diffusion equation applicable in diuresis (*rabbit*), 61, 595
dyes deposited in (*rabbit*), 72, 201
fat, anterior pituitary extract effect on (*guinea-pig*), 92, 103
filtration rate in perfused preparation of (*P-L-K*), 77, 13*P*
histamine destruction by (*mammal*), 67, 260; (*dog, rabbit*), 86, 55*P*
histamine excretion by (*P-L-K*), 77, 314
histamine inactivation by (*P-AL-K*), 70, 367
innervated, heart-lung perfusion of (*dog*), 69, 135
insulin disappearance after injection affected by (*rabbit*), 97, 424
intra- and extra-renal pressures interaction in, 87, 77*P*
intrarenal pressure affected by cooling and 'reduction' of (2*P-L-2K*), 82, 27*P*
intravital dye method study of urine formation by (*frog, rat*), 97, 433

**Kidney**, intravital microscopy of (*rat*), 82, 10*P*
inulin and creatinine clearances in (*dog*, *P-L-K*), 98, 97
ischaemic, blood-pressure affected by graft of (*dog*), 94, 283
oestrin excretion by (*H-L-K*), 67, 380
osmotic work and efficiency with diuretics, (*P-L-K*), 97, 363
oxygen consumption of (*dog*), 65, 100
affected by arterial pressure change and urea (*P-L-K*), 96, 87
affected by diuretics on (*P-L-K*), 97, 363
with sulphate diuresis in (*H-L-K*), 67, 14
perfusion, double heart-lung preparation for (*dog*), 68, 333
from pump-lung circuit (*dog*), 71, 201
phenol red excretion by (*rabbit*), 82, 438; (*dog*), 87, 237
phlorrhizin action on (*dog*), 69, 411
on dyestuffs excretion by (*frog*), 89, 30*P*
localized in (*frog*), 89, 33*P*
phosphorus compounds in (*mammal*), 68, 207
pitressin and pitocin action on (*man*, *dog*), 68, 238
pituitrin inactivation by (*guinea-pig*), 85, 508
pituitrin on chloride excretion by (*man*), 66, x
post-pituitary extract, excretion and destruction by (*cat*), 87, 152
toxic action on (*rabbit*), 93, 13*P*
pressure-flow relations in (*H-L-K*), 72, 366
prolan excretion by (*rabbit*), 79, 226
protein excretion by (*mammal*, *P-L-K*), 77, 386
reflex changes in blood and urine flow of (*H-L-K*), 69, 139
renin action on urine formation by (*rabbit*), 98, 314
respiration, vitamin $B_1$ effect on (*pigeon*), 81, 11*P*
Ringer diuretic action on (*P-L-K*, *dog*), 98, 336
splanchnic nerve section under local anaesthesia affecting (*dog*), 72, 26*P*
sugars excretion by (*rabbit*), 80, 238
sulphate excretion by (*man*), 76, 329
temperature effect on (*P-L-K*), 78, 14*P*
tubular secretion in (*frog*), 82, 12*P*
urea effect on oxygen consumption of (*P-L-K*), 96, 98
ureter pressure increase effect on (*H-L-K*), 71, 381
**Kidney**, ureter, venous and arterial pressure relationships in (*P-L-K*), 99, 135
venous pressure increase effect on (*H-L-K*), 72, 49
**Knee jerk**, acetylcholine, prostigmine and related substances action on (*cat*), 89, 384
adrenaline action on (*cat*), 87, 92*P*; 88, 476
anti-cholinesterases action on (*cat*), 96, 305
autonomic stimuli affecting (*cat*), 88, 459
eserine and acetylcholine action on (*cat*), 89, 165
eserine and prostigmine, etc. effect on (*dog*), 100, 349
hordenine compounds action on (*cat*), 92, 424
nervous system disorders affecting (*man*), 68, 137
nicotine action on (*cat*), 94, 137
spinal cord lesions effect on, 69, xxvii
vestibular nuclei affecting (*cat*), 70, xxii
**Knee-joint**, sympathectomy effect on dye diffusion into (*mammal*), 99, 167
**'Krampfstoffe'**, brain acetone extract effect and (*rabbit*), 85, 400
**Krogh's micro-gas analysis apparatus**, modification of, 84, 219
**Kupffer cells**, carotene absorption from blood by (*cat*), 82, 77
**Kymograph**, extension for doubling surface on, 69, xxxiv

**Labyrinth**, apnoeusis affected by influences from (*cat*), 93, 19
electrical studies on (*frog*), 86, 117
endolymph osmotic pressure in (*cat*), 98, 446
semicircular canals activity in (*ray*), 99, 89
sixth nerve potentials with stimulation of (*cat*), 97, 12
vitamin A deficiency effect on bony (*dog*), 94, 386
**Labyrinthine stimulation**, arm posture and (*man*), 65, x
**Lactacidogen**, fatigue of muscle and (*frog*), 68, 204
muscle activity and (*frog*), 65, 22
**Lactation**, adrenal cortex affected by (*rat*), 77, 159
blood sugar during (*man*), 77, 100
corpus luteum removal and (*goat*), 61, 608
hormones affecting (*mammal*), 87, 30*P*
oestrin effect during (*mouse*), 62, 301
spleen size affected by (*dog*), 76, 444
stilboestrol effect on (*goat*), 98, 15*P*
stilboestrol initiation of (*cow*), 100, 7*P*

**Lactation**, thyroid gland relation to (*rat*), 93, 401
**Lacteals**, contractility of (*mammal*), 62, 267; 63, 1
**Lactic acid**, absorption rate and liver glycogen formation from (*rat*), 84, 311
acetylcholine synthesis by sympathetic ganglion affected by (*cat*), 96, 286
adrenalectomy effect on muscle production of (*cat*), 82, 315
adrenaline action on muscle and (*cat*), 70, 74
anaerobic heart metabolism and (*frog*), 83, 266
bicarbonate relationship, exercise and (*man*), 69, 292
blood and concentration of. *See* **Blood lactate**
blood pH and production of (*P-L-limb*), 70, 261
blood vessels affected by (*cat*), 65, 27
cardiac muscle maximum of (*frog*), 63, 107
creatine phosphate synthesis in iodoacetate poisoning affected by (*frog*), 78, 299
enzyme, purification of, 64, xvi .
exercise and distribution in body of (*dog*), 70, 277
foetal production with insulin of (*dog*), 92, 221
glycogenolysis in muscle and liver and (*cat*), 64, 255
heart affected by, 84, 55*P*
heart anaerobic activity and (*frog*), 75, 324
heart and oxygen pressure effect on production of (*frog*), 77, 435
heat of neutralization of (*frog*), 68, 55
iodoacetate action on heart usage of (*frog*), 90, 341
on muscle metabolism of (*frog*), 75, 201
liver glycogen formation from infusion of (*cat*), 80, 41
formation in toxaemia (*rabbit*), 82, 403
storage after hypophysectomy in young from (*rabbit*), 88, 411
lungs production of (*P-L*), 82, 46
mild exercise effect on (*man*), 69, 221
nerve activity and function of (*frog*), 76, 477
neutralization in muscle of (*frog*), 68, 301
perfused liver and usage of (*mammal*), 61, 509
pH changes in muscle with production of (*frog*), 94, 471
plasma and red cell distribution of, 75, 21*P*
**Lactic acid**, production, training and exercise on (*man*), 66, 152
resting condition and source of (*man*), 79, 443
rigor mortis and production of (*fish*), 61, iv
skeletal muscle capillary dilatation in absence of (*frog*), 71, 359
and diffusion of (*frog*), 79, 194
extract production of (*rabbit*), 65, 118
synthalin action and production of (*cat*), 65, 96
**Lactose** excretion, puerperium and (*man*), 69, viii; 71, 342
ingestion, excretion following (*man*), 71, 349
respiratory quotient of (*man*), 63, 315
**Laevulose** tolerance, glycogen formation and (*rat*), 80, 480
**Laked blood**, vaso-dilator action of (*dog*), 64, 167
**Lapique's theory** of curarization, refutation of (*frog*), 77, 337
**Large intestine**, abdominal muscles affected by reflex from (*cat*), 90, 478
exteriorized, reactions of (*dog*), 76, 460
friction stimulus effective in (*cat*), 74, 14*P*
mucus secretion, factors affecting (*mammal*), 65, xxii
nervous control of caudal end of (*cat*), 77, 422
sugar absorption from (*rat*), 96, 172
water absorption from (*rat*), 98, 487
**Laryngeal nerves**, respiration affected by section of (*dog*), 77, 2
**Larynx**, pitch change in voice and movements of (*man*), 91, 256
**Latency**, negative after-images and (*man*), 66, 281
**Latent period**, alpha and gamma excitabilities and (*frog*), 72, 275
cardio-inhibitory reflex and, 71, 418
crossed extensor reflexes and (*cat*), 67, 99
with single shock stimulus (*cat*), 77, 239
dorsal root potentials and (*frog*), 100, 285
and temperature effect on (*frog*), 96, 227
motor cortex stimulation and (*mammal*), 88, 154
motor end-plate and (*cat*), 97, 52
retina and optic nerve action potentials and (*frog*), 83, 366
retinal action potentials and (*cat*), 78, 423
with stimulus area and (*cat*), 77, 231
skeletal muscle and analysis of (*frog*), 74, 17
skeletal muscular contraction theories and behaviour of (*frog*), 78, 329
sympathetic ganglion and (*cat*), 85, 200

**Latent period**, sympathetic nerve stimulation and (*cat*), 71, 197
temperature sensations and (*man*), 69, 99
vagus stimulation to heart and (*cat*), 82, 214
vaso-motor reflexes, ergotamine action on (*cat*), 69, 333
**Lateral line canal**, sensory end-organ response in (*ray*), 89, 47*P*
**Lecithin**, blood clotting affected by, 99, 8*P*
depancreatized animals affected by (*dog*), 75, 49
liver fat deposition affected by (*rat*), 75, 56
plasma 'ageing' to trypsin coagulation and (*fowl*), 98, 20*P*
thrombokinase affected by, 96, 39*P*
**Leech muscle**, acetylcholine standardization on, 79, 263
eserine sensitization to barium, 80, 21*P*
**Left-handedness**, hearing acuity relation to (*man*), 96, 48*P*
**Leg movement**, efficiency in cycling with duration of (*man*), 82, 203
efficiency with speed of (*man*), 67, 246
energy expenditure in running and walking (*man*), 81, 262
**Leg volume**, posture effect on (*man*), 72, 121
**Leg weight**, water absorption relation to (*man*), 78, 114
**Lens**, light transmission through different regions of (*cat*), 98, 181
**Leucocyte count**, diurnal variations in (*man*), 75, 114
hot climate effect on (*man*), 87, 336
**Leucocytes**, fat absorption effected by (*frog, rabbit*), 93, 1
glycolysis effected by (*dog*), 84, 179
haemorrhage and haemolysis effects on (*rabbit*), 65, 259
high altitude effect on (*man*), 78, 335
histamine content of (*man*), 90, 494
insulin action on (*man*), 66, 401
variation with breathing (*man*), 65, v
**Leucocytosis**, adenine compounds action on (*rabbit*), 72, 303
food effect in normal and hepatic cases on (*man*), 77, 63
rest and exercise effect on (*man*), 75, 113
**Levin-Wyman ergometer**, muscle viscosity measurement by (*frog*), 69, 479
**Light adaptation**. *See* **Light adaptation**
flicker sensitivity in relation to (*man*), 74, 415
intensity, hue discrimination affected by (*man*), 88, 184
retinal response to monochromatic stimuli in dark adaptation affected by (*frog*), 88, 446
**Light**, optic ganglion response to (*Dytiscus*), 91, 60
optic nerve discharge in response to (*eel*), 63, 383
reaction time and (*eel*), 64, 285
red blood cell haemolysis effected by (*vertebrate*), 99, 510
sensitivity, buck wheat extract producing (*rodent*), 100, 212
wave-length, blue-green colour constancy in (*man*), 98, 393
**Light adaptation**, factors in (*man*), 71, xiii
flicker adaptation relation to (*man, frog*), 84, 111
fusion frequency in different species with (*bird, mammal*), 85, 423
hue discrimination relation to (*man*), 88, 167
retina and optic nerve action potentials with dark stimulus in (*frog*), 83, 368
retinal responses to monochromatic stimuli with (*frog*), 89, 239
to stimuli after (*frog*), 81, 3
visual purple regeneration and retinal sensitivity following (*frog, cat*), 96, 34
**Limb**, blood viscosity measurement in (*dog*), 78, 339
circulation, acetylcholine action on (*cat*), 77, 406
nerves, traumatic shock affected by section of (*cat*), 92, 369
skin vessels and sympathetic action on (*dog*), 87, 263
synthalin action on blood sugar in (*dog*), 65, 93
thyroid feeding effect on metabolic rate of (*rat*), 74, 403
vascular responses in (*mammal*), 61, 185
vaso-dilatation in (*cat*), 63, 209
**Limb-bud**, spinal cord development affected by removal of, 81, 31*P*
**Limb volume**, adrenaline action on (*cat*), 69, 174
cocaine action with adrenaline, etc. on (*mammal*), 71, 173
over-ventilation effect on (*cat*), 70, 307
**Lip blood vessels**, double innervation of (*dog*), 73, 64
**Lipaemia**, plasma auto-oxidation and (*man*), 65, 11
**Lipase**, fat absorption and (*cat*), 64, v
fat absorption affected by (*man*), 94, 24*P*
fat emulsification state and action of, 78, 467
**Lipoid**, hypodynamic heart affected by (*frog*), 66, 205

Lipoid, ovary during ova production and content of (*frog*), 91, 394
plasma auto-oxidation and (*rabbit*), 65, 6
Liquor folliculi, oestrus-producing extract from (*mammal*), 61, 568
Litter size, oestrin action relation to (*mouse*), 62, 206
Liver, adenylic acid content of (*mammal*), 72, 292
adrenaline action on potassium of (*cat*), 86, 221
on potassium liberation from perfused (*cat*), 87, 181
adrenaline inactivation in blood affected by (*cat*), 91, 239
in different species by, 93, 54*P*
*in vitro* by, 86, 35*P*
adrenaline oxidation affected by (*rabbit*), 72, 97
alcohol metabolic rate relation to (*cat*), 98, 245
amino acids in blood relation to (*cat*), 89, 273
anaphylactic shock effect on heparin liberation from (*dog*), 99, 463
anti-diuretic substance in (*ox*), 78, 18*P*
calcium content of (*mammal*), 84, 39*P*
capillary circulation in (*mouse*), 67, xiii
carotene absorption from blood by (*cat*), 82, 76
carotene storage and vitamin A content of (*rat*), 83, 236
cells, blood relation to, 67, xl
Golgi apparatus, bile secretion and (*mammal*), 62, 74
cholesterol content of (*rabbit*), 68, 262
cholesterol metabolism and (*rabbit*), 66, 257
cholesteryl esters, casein action on (*rat*), 87, 55*P*
choline action on respiration of slices and minced (*rat*), 85, 356
circulation and factors affecting (*P-AL-Li*), 74, 356
circulation time in (*mammal*), 74, 44
denervation, glycogen synthesis affected by (*cat*), 73, 85
depancreatization effect on sugar production by (*dog*), 88, 9*P*
diastase, insulin action on (*mammal*), 62, iii
diet, blood pressure affected by (*cat*), 90, 89*P*
disease, post-prandial leucocytosis in (*man*), 77, 63
excision from circulation without anæsthetic (*rabbit*), 91, 413
Liver, extract, adrenaline action on oxygen consumption of (*rat*), 90, 4
histamine content of (*ox*), 62, 400
fat. *See* Liver fat
fatty infiltration in pregnancy (*sheep*), 97, 238
feeding, endocrine organ changes with (*cat*), 75, 38*P*
galactose phosphate formation in (*rabbit*), 93, 34*P*
glycogen. *See* Liver glycogen
glycogenolysis in post-mortem (*cat*), 64, 262
glycotropic factor action on (*rabbit*), 92, 190
graft, toxæmia resulting from (*dog*), 62, xxii
haemopoietic activity in different species of (*mammal*), 100, 94
haemorrhage and blood regeneration affected by (*dog*), 62, 192
haemorrhage effect on sugar output by (*cat*), 84, 403
histamine destruction by (*mammal*), 67, 260
inactivation by (*P-AL-Li*), 70, 351
liberation by cobra venom (*mammal*), 94, 198
insulin disappearance after injection affected by (*rabbit*), 97, 422
insulin on acetone production in (*cat*), 62, 17
lactic acid removal after exercise by (*dog*), 70, 283
lobes, glycogen distribution in (*cat*), 73, 71
'lysocithin' formation by cobra venom in (*mammal*), 94, 200
oxygen lack effect on haemopoietic action of (*rabbit*), 84, 454
perfusion apparatus (*dog*), 74, 347
perfusion of (*dog*), 65, 49
perfusion method for metabolic studies on (*rat*), 100, 432
pituitrin hyperglycæmia and (*cat*), 64, 328
pituitrin inactivation by (*guinea-pig*), 85, 508
post-pituitary extract destruction by (*cat*), 87, 155
potassium, adrenaline action on (*cat*), 90, 305
liberation with adrenaline action on (*cat*), 86, 9*P*
regeneration, colchicine action on (*rat*), 86, 63*P*
skeletal muscle glycogen resynthesis affected by (*cat*), 74, 341
sluice mechanism in (*P-AL-Li*), 74, 365

**Liver**, sugar formation from non-protein sources in perfused (*mammal*), 61, 497
synthalin action on (*rabbit*), 65, 38
urea formation in perfused (*rat*), 100, 432
vascular reactions to acetylcholine and sympathomimetic substances (*P-L-Li*), 97, 316
volume, acetylcholine action on (*cat*), 77, 403
adrenaline action on (*cat*), 75, 258
carotid sinus reflex effect on (*dog*), 69, xxix
water-diuresis and water content of (*rat*), 76, 16
**Liver fat**, acetone production and (*cat*), 62, 27
adrenalectomy effect on (*cat*), 81, 43*P*
anterior pituitary extract effect on (*rat*), 86, 190
in different species effect on (*mammal*), 92, 91
carbon tetrachloride action affected by choline on (*rat*), 97, 103
casein action on (*rat*), 86, 337
cholesterol and choline action on (*rat*), 78, 415
choline action on (*rat*), 75, 405; 81, 409; 84, 38*P*
on cholesterol and (*rat*), 86, 343
after cholesterol feeding on (*rat*), 84, 7*P*
after pancreatectomy on (*dog*), 79, 94
with different diets on (*rat*), 83, 255
choline-low diets effect on (*rat*), 86, 315
composition of (*man*), 72, 354
deuterium indicator of source of (*mouse*), 93, 367
insulin content of pancreas relation to (*rat*), 97, 115
lecithine action on (*rat*), 75, 56
metabolism, choline action in sliced preparation on (*rat*), 85, 367
methionine action on (*rat*), 97, 489
phosphorus poisoning and choline action on (*rat*), 83, 275
pregnancy effect on concentration of (*sheep*), 99, 445
under nutrition effect on (*mammal*), 94, 47
vitamin $B_1$ effect on (*rat*), 86, 27*P*
action on (*rat*), 89, 287
**Liver glycogen**, adrenaline action on (*cat*), 71, xxiv; 73, 103
adrenaline and insulin actions on (*rabbit*), 79, 290; (*rat*), 80, 314
amino acids specific dynamic action and formation of (*cat*), 87, 113
**Liver glycogen**, anaesthetics action on (*cat*), 73, 67; 76, 395
and operative procedures effect on (*cat*), 71, xxv
anterior pituitary extract and insulin action on (*rabbit*), 93, 65
atropine and ergotamine action after decerebration on (*rabbit*), 80, 296
chloralose action on (*cat*), 84, 40*P*
decapitate preparation and recovery of (*cat*), 76, 413; 80, 14
decapitation and decerebration effect on (*cat*), 73, 81
decerebrate hyperglycaemia dependence on (*rat*), 78, 205
diet effect on stability of (*rat*), 92, 43
fat diet and insulin effect on (*rat*), 65, 198
hypophysectomy effect on adrenaline action on (*rabbit*), 87, 7
on storage in young (*rabbit*), 88, 409
insulin action on (*opossum*), 75, 29; (*cat*), 84, 65*P*; 87, 121
affected by adrenalectomy (*rabbit*), 82, 407
after hypophysectomy on (*rabbit*), 80, 201
lactate infusion effect on (*cat*), 80, 41
laevulose action on (*rat*), 80, 484
magnesium action on (*cat*), 84, 5*P*
pituitary glycotropic effect on (*rabbit*), 90, 20*P*
pituitrin effect on blood sugar and (*dog*), 67, 267
source of (*cat*), 73, 94
spleen relation to formation of (*mammal*), 84, 302
thyroidectomy effect on insulin action on (*rabbit*), 86, 56
toxaemia affecting insulin action on (*rabbit*), 75, 383
toxaemia effect on formation from lactate of (*rabbit*), 82, 403
**Lizard**, acetylcholine hydrolysis rate in muscle, 92, 44
acetylcholine on motor end plate, 90, 82*P*
neuromuscular response with acetylcholine block, 95, 59*P*
**Local anaesthetics**, adrenaline oxidation inhibition by, 97, 301
liver vascular reactions to (*P-L-Li*), 97, 326
sympathomimetic action of (*mammal*), 97, 289
water diuresis affected by (*rabbit*), 76, 6
**Low barometric pressure.** *See* **High Altitude**
**Lumbar sympathetic ganglion**, transmission through (*cat*), 86, 269

Lumbo-sacral cord, colon inhibition centres in (*cat*), 77, 423
Luminal, blood sugar and liver glycogen affected by (*cat*), 76, 401
brain metabolism affected by (*rat*), 92, 324
sympathetic action on stomach movements reversed by (*cat*), 74, 179
Lung, acetylcholine liberation with vagus stimulation to (*guinea-pig*), 82, 14*P*
air stream direction in (*fowl*), 97, 133
air tubes, warm conditions effect on (*man*), 87, 17*P*
arterial blood gas pressures in (*man*), 68, 277
'artificial', blood oxygenation with, 66, 443
blood capacity, conditions governing (*dog*), 65, 422
blood 'detoxification' by (*dog*), 71, 207
blood glycolysis in, 80, 19*P*
blood vessels, microscopic examination of reactions of (*cat*), 80, 67
bronchomotor response to stellate ganglion stimulation and acetylcholine (*guinea-pig*), 99, 57
deflation, respiratory reflex slowing with (*rabbit*), 88, 285
distension, respiratory response and mechanism of (*mammal*), 96, 234
respiratory rhythm affected by (*mammal*), 66, vi
drugs acting on blood vessels in (*P-L*), 77, 139
gases, automatic collection of (*cat*), 99, 83
glucose usage by (*P-L*), 80, 372
glycogen, heart usage in aglycaemia of (*H-L*), 94, 340
glycolysis in (*P-L*), 82, 41
histaminase action on perfusate of anaphylactic (*guinea-pig*), 83, 3*P*
histamine. *See* Lung histamine
indian ink excretion from (*cat*), 90, 482
inflation and deflation, vagus section effect on response to (*dog*), 74, 97
inflation, vagus respiratory-accelerator fibres and (*dog*), 85, 66
'lysocithin' formation by cobra venom in (*mammal*), 94, 194
negative ventilation of (*dog*), 65, 34
oedema, measurement and cause of (*dog*), 61, 98
perfusion, oxygenator compared with (*P-L-K*), 72, 344
perfusion pump and (*dog*), 64, 361
posture effect on (*man*), 64, 54
reflexes, asphyxia effect on (*dog*), 74, 102
strychnine action on (*rabbit*), 78, 88
snake venoms action on (*mammal*), 90, 264
Lung, stretch receptors, factors controlling activity of (*cat*), 79, 335
sugar utilisation by (*H-L*), 70, v
vascular reflexes from (*cat*), 87, 46*P*
vaso-constrictors to (*mammal*), 65, 303
volume, histamine action on (*mammal*), 76, 348
histamine action in different species on (*mammal*), 70, 2
water loss during work (*man*), 67, x
Lung histamine, bee venom liberation of (*guinea-pig*), 91, 2*P*
content of (*ox*), 62, 405
destruction in autolysis of (*mammal*), 67, 256
factors affecting (*P-L*), 77, 310
factors concerned in liberation of (*cat*), 71, 31
liberation by cobra venom from (*mammal*), 94, 192
by peptone action on (*mammal*), 90, 288
by snake venom from (*mammal*), 90, 257
by staphylococcal toxin action on (*mammal*), 90, 280
Lymph amino acids, blood relation with peptone feeding to (*cat*), 89, 278
blood colloid osmotic pressure relation to (*frog*), 63, 306
colloid osmotic pressure of (*frog*), 63, 306
sugar content of (*cat*), 83, 49*P*
Lymph gland, contraction of (*cat*), 63, 15
lymphocytosis induced by extract of (*mammal*), 98, 21*P*
Lymph hearts, synchronization and integration of spinal centres of (*Salientia*), 95, 345
Lymphatic system, splenic blood concentration by (*cat*), 66, 232
Lymphocytes, chloralose anaesthesia effect on (*dog*), 85, 450
high altitude effect on count of (*man*), 78, 335
histamine content of (*mammal*), 90, 493
insulin action on (*man*), 66, 401
Lymphocytosis, exercise effect on (*man*), 75, 118
lymph node extract producing (*mammal*), 98, 21*P*
Lysocithin, cobra venom action on tissue formation of substances like (*mammal*), 94, 187
cobra venom with lymph and egg yolk in formation of, 94, 233
pharmacological actions of (*mammal*), 94, 237
Lysolecithin, adrenal medulla affected by (*cat*), 99, 108

Macrophage, blood monocyte growth in vivo and (*chicken*), 93, 63*P*
speeding-up of cell divisions in (*chick*), 100, 5*P*
synchronous mitoses in binucleate (*chick*), 98, 6*P*
Magnesium, amino acids effect on solubility of salts of, 100, 17*P*
brain metabolism affected by (*rat*), 92, 324
curarization effect of (*crab*), 86, 14*P*
intestinal muscle and effect of (*rabbit*), 63, 101
intestine contractions affected by changes in lumen of concentration of (*mammal*), 68, 72
liver glycogen affected by (*cat*), 86, 5*P*
neuro-muscular transmission affected by (*crab*), 87, 215
plain muscle action potential affected by (*Mytilus*), 90, 419
and contraction affected by (*Mytilus*), 91, 177
plain muscle response to A.D. stimulation affected by (*Mytilus*), 94, 324
respiratory paralysis effected by, 82, 2*P*
skeletal muscle interfibre space volume measured by (*frog*), 99, 404
tooth growth and composition affected by deficiency of (*rat*), 99, 1
histological appearance affected by deficiency of (*rat*), 99, 8
Magnesium sulphate, exteriorized colon reaction to (*dog*), 76, 467
Male, pubic bone separation with oestrogens treatment in (*mouse*), 85, 159
Male accessory genital organs, adrenaline-like extract from (*mammal*), 81, 102
Male hormone assay, prostate and seminal vesicles weight after castration and (*rat*), 85, 328
comb-growth assay method of (*capon*), 73, 136
prostate development in female with (*rat*), 90, 371
Male reproductive cycle (*ferret*), 71, xx
Malpighian corpuscle, vascular supply to (*cat*), 74, 330
Maltose, respiratory quotient of (*man*), 63, 315
Mammary gland, cellobiose utilized by (*rabbit*), 73, 6*P*
corpus luteum action on (*goat*), 61, 508
hormone control of (*ferret*), 65, xviii
Manganese, intestinal muscle and effect of (*rabbit*), 63, 102
Mannose, heart in anaerobiosis affected by (*frog*), 80, 460
Marey's Law, central and reflex components of (*dog*), 61, 325
Massage, adipose tissue deposition affected by (*human*), 100, 394
Mast cells, mucoid secretion in sexual skin oedema (*monkey*), 94, 23
Mathematics, current distribution in nerve and, 65, 196
Mating, pituitary ovulation hormone content following (*rabbit*), 83, 130
Matthews oscillograph, description of, 65, 225
Mechoilin, gastric acidity affected by (*monkey*), 83, 455
knee jerk affected by (*cat*), 89, 389
Median nerve, extensor reflexes and (*cat*), 65, 206
Medulla, lymph hearts synchronization affected by (*Salientia*), 95, 351
vitamin A deficiency and early lesions in (*rat*), 94, 310
Melanophore hormone, drugs action on secretion of (*frog*), 95, 47*P*
light effect on drug stimulation of secretion of (*frog*), 96, 15*P*
Melanophores, human urine effect on (*frog*), 90, 429
pituitary intermediation in drugs action on (*frog*), 90, 51*P*
posterior pituitary extracts and, 65, 439
Membrane, nerve stimulation and permeability of (*theoretical*), 100, 117
Membrane permeability, potassium in muscle and (*frog*), 100, 7
Membrane potential, potassium accumulation in muscle and (*frog*), 100, 31
Meningeal reflex, cerebral blood flow and (*dog*), 84, 368
Menstrual cycle, blood concentration affected by (*monkey*), 89, 51*P*
oestrone and progestin interaction in (*monkey*), 86, 31*P*; 89, 49*P*
red blood cell count in relation to (*monkey*), 91, 269
urine surface tension and absorption spectrum changes with (*man*), 95, 404
changes in (*man*), 85, 141
water metabolism affected by (*monkey*), 88, 369
Menstruation, spleen volume in (*dog*), 66, 32
Mercury droplet stromuhr, coronary circulation measurement by (*H-L*), 73, 414
Mesenteric artery, drugs action on (*mammal*), 64, 65
histamine action on (*pig*), 61, 286
pituitrin action on (*mammal*), 76, 161

Mesenteric artery portal pressure relation to (*cat*), 75, 248
temperature effect on (*mammal*), 64, 68
Mesenteric ganglion, choline ester liberation at (*dog*), 82, 9*P*
Mesenteric vein, histamine action on (*pig*), 61, 286
vomiting with ligature of (*cat*), 90, 254
Mesentery, afferent fibres from (*cat*), 89, 411
sympathetic nerve action potentials with stimulation of (*frog*), 76, 228
transudation through (*mammal*), 71, 412
'Mica' compound, knee jerk affected by (*cat*), 89, 181
Metabolic rate, closed-circuit respiration apparatus for measurement of (*man*), 67, 427
exercise and recovery rate of (*man*), 89, 462
exercise in different subjects on, 69, 270
glucose infusion rate effect on (*dog*), 91, 145
low oxygen pressure effect on (*man*), 82, 371
oxygen capacity of blood relation to (*man*), 66, 142
pituitary tumour affecting (*man*), 71, xxvii
postural contraction effect on (*cat*), 74, 163
pregnancy and pseudo parturition effect on (*mouse*), 92, 139
shivering effect on (*man*), 71, 380
thyreotropic hormone action on (*mammal*), 82, 14
thyroid effect on (*axolotl*), 64, 287
thyroid extract standardization and (*mouse*), 67, 224
thyroid feeding effect on (*rat*), 74, 401
Metabolism, ketosis after pancreatectomy affected by increase in (*dog*), 97, 394
organ size in relation to (*mammal*), 87, 39*P*
protein and basal, 65, 243
synthalin action on (*cat*), 65, 95
Metabolism apparatus, closed circuit for small animals, 89, 421
Metamorphosis, thyroid effect on (*axolotl*), 64, 287
Metamyelocytes, exercise effect on circulation of (*man*), 75, 119
Methaemoglobin, myohaemoglobin and formation of (*ox*), 69, 213
Methionine, liver fat affected by (*rat*), 97, 489
Methoxy group, amines and adrenaline-like actions affected by (*mammal*), 81, 422
Methoxy-phenylethylamines, physiological actions of (*mammal*), 76, 224
Methoxyphenyl-methoxyethylamines, actions of (*mammal*), 81, 422
Methoxy-phenylisopropylamines, pharmacological actions of (*mammal*), 95, 485
Methyl alcohol, heart affected by (*frog*), 63, 21
Methyl glyoxal, heart in anaerobiosis affected by (*frog*), 80, 464
Methylene blue, acetylcholine antagonized by (*frog*), 62, 100
renal extraction ratio of (*rabbit*), 72, 228
Mid-brain, hyperglycaemic response to transection of (*mammal*), 91, 21*P*
potential waves from (*goldfish*), 71, 128
Microtitration apparatus improvement, 84, 27*P*
Micturition, reflex paths involved in (*cat*), 86, 412
Milk production, corpus luteum effect on (*goat*), 61, 610
Miotine, acetylcholine protection by, 70, 344
Miotine methiodide, knee jerk affected by (*cat*), 96, 314
Mirror myograph, use of (*cat*), 70, 102
Mitochondria, thyroid gland activity and changes in (*mouse*), 61, 402
Mitosis, binucleate macrophage showing synchronous (*chick*), 98, 6*P*
Mitral stenosis, heart sounds in (*man*), 67, xviii
Modulus of elasticity, skeletal muscle and (*frog*), 69, 480
Monkey, brain Berger rhythm, 87, 83*P*
gastric acidity with acetyl-β-methyl choline, 83, 455
menstrual cycle effect on blood concentration, 89, 61*P*
oestrone and progesterone interaction, 86, 31*P*; 89, 49*P*
red blood cell count and, 91, 269
water metabolism affected by, 88, 389
motor horn cells chromatolysis with cord section, 75, 11*P*
nerve degeneration with cord section, 77, 18*P*
oestrin and species variation in sensitivity to, 84, 191
and uterine bleeding, 87, 51*P*
action on water balance, 91, 272
oestrone action on vaginal pH, 89, 96
paraplegia effect on flexor reflex, 75, 17
pilocarpine action on gastric chloride and acidity, 82, 1

Maudsley, neural skin oedema and connective tissue cell changes, 94, 16
neural skin and water balance, 93, 378
and water distribution, 99, 15*P*
stomach movements with cerebral cortex stimulation, 83, 177
sympathetic stimulation effect on skeletal muscle, 86, 352
testosterone effect on gonadotropic hormone action, 93, 15*P*
vesicular gland depressor substance, 84, 21*P*
visual cortex activity with eye illumination, 100, 9*P*
Monocytes, ' cannibalism ' and chemotaxis *in vitro* of (*horse*), 91, 22*P*
cell-division *in vitro* of (*horse*), 90, 23*P*
tissue macrophage growth *in vitro* and (*chicken*), 93, 48*P*
Monophasic electrical response, diphasic relation to, 81, 1*P*
Morning 'alkaline tide', gastric secretion and (*man*), 76, 74
Morphine, adrenal medulla affected by (*cat*), 65, XXXII
exteriorised colon reaction to (*dog*), 76, 469
water diuresis affected by (*dog*), 68, 39
Morphothebaine-dimethylether, pharmacological actions of (*various*), 100, 64
Motor car engine, blood pump adaptation from, 77, 36*P*
Motor cortex, action potentials with stimulation of (*mammal*), 88, 152
drugs action on response to stimulation of (*cat*), 99, 312
electrical stimulation effect on pyramidal tract activity (*mammal*), 97, 186
eserine action on (*cat*), 91, 215
pyramidal tract activity relation to (*mammal*), 97, 157
Motor end plate, acetylcholine action on (*lizard*), 98, 32*P*
acetylcholine production at (*mammal*), 96, 353
chemical transmission at (*cat*), 87, 42*P*
choline esterase content of muscle and (*frog*), 92, 39
delay of impulse in (*cat*), 97, 52
drugs acting on chemical transmitter at (*frog*), 87, 43*P*
electrical changes following single and double nerve volley to (*cat*), 97, 44
potassium action and tetanus after-effects on (*cat*), 93, 53
potential, nature of (*cat*), 97, 72
refractory period of (*cat*), 97, 61
transmission at (*crab*), 87, 199
*See also* Neuro-muscular
Motor horn cells, chromatolysis from cord section (*monkey*), 75, 11*P*
Motor nerve, antidromic sensory fibres in (*cat*), 85, 80
diameter of slow and twitch axons in (*eyelash*), 88, 93
impulses, reflex contraction and frequency of (*cat*), 67, 119
velocities in (*Musie*), 87, 166
recovery rate in (*frog*), 66, 14
Motor nerve-ending. *See* Motor end plate and Neuro-muscular
Motor neurones, action potential of (*cat*), 89, 43*P*
excitation of (*frog, cat*), 92, 302
nervous impulse discharge rate from (*cat*), 61, 38
reflex discharge, antidromic impulse effect on, 71, XXI
rhythmic discharge, reflex interruption of (*cat*), 83, 185
Motor-units, inhibitory action on (*cat*), 66, 109
plain muscle and (*cat*), 90, 55
rhythmic discharge, reflex interruption of (*cat*), 83, 185
size of, 79, XVIII
Mucin, bile stimulation of pancreatic secretion and (*cat*), 61, 423
Mucous membrane, pressure sense endings response in (*cat*), 97, 212
protective function in intestine of (*mammal*), 68, 73
Mucus, properties of gastric secretion of (*cat*), 73, 120
Multipolar electrodes, nerve stimulation by (*frog*), 66, 217
Muscle. *See* Skeletal and Plain
Muscle end plate. *See* Motor end plate and Neuro-muscular
Musical tone, rotating disk for changing phase of, 81, 13*P*
Myasthenia gravis, blood choline esterase content in, 84, 56*P*
prostigmine action in (*man*), 84, 35*P*
prostigmine potentiation by ephedrine in (*man*), 98, 4*P*
Wedensky inhibition in (*man*), 78, 3*P*
Myograph, isometric for mammalian muscle, 66, III
single muscle sensory nerve ending preparation and use of (*cat*), 78, 3
Myohaemoglobin, muscle contraction and function of (*cat*), 87, 38*P*
oxygen-combining power of (*ox*), 69, 210
Myosin, muscle activity effect on ease of extraction of (*various*), 92, 36*P*

Hypotonic rigidity, neuro-muscular comparison with (*man*, *frog*), 76, 89
Idyllium muscle, action potential and electrode distance, 90, 243
action potentials, 90, 415; 91, 172
anaerobic metabolism, 87, 60
arginine phosphate in activity, 82, 81
calcium effect on base and weight, 91, 403
calcium and magnesium effect on response to A.C. stimulation, 94, 322
comparative study with frog, 96, 371
constant current and sodium stimulation comparison, 94, 4
cyanide effect on, 89, 54*P*
frequency of stimulation effect on response of, 82, 1*P*
inorganic constitution of, 89, 13*P*
isotonic extension and shortening, 92, 233
oxygen consumption, 87, 56; 98, 20
potassium and A.C. action on, 92, 64
salt content, 91, 398
staircase effect, 90, 423; 91, 174
temperature affect on response of, 98, 12
tonic contractions with stimulation, 94, 1
viscosity affected by constant current, 88, 495
viscous-elastic properties of, 84, 47*P*; 92, 232
Myxoedema, gastric secretion affected by (*man*), 85, 21*P*

Narcotics, brain respiration affected by (*rat*), 92, 322
heart affected by (*frog*), 66, 212
nerve conduction from single end-organ affected by (*frog*), 73, 382
nerve decrementless conduction with (*toad*), 64, 193
Nausea, oesophageal musculature and (*man*), 65, 158
Needle prick, sensory nerve action potentials resulting from (*cat*), 95, 11
Negative delayed heat, muscle and (*frog*), 75, 284; 77, 104
Negative intrapleural pressure, cause of, 92, 28*P*
Nembutal poisoning, thyroid feeding effect on (*rat*), 86, 183
Nephritis, sulphate clearance in (*man*), 76, 333
Nephron, ethrophagocytosis in open (*Xenopus*), 90, 77*P*
Nerve, accommodation, factors affecting (*frog*), 84, 1*P*
Nerve, accommodation, measurement of (*man*), 85, 5*P*
multiple response to constant current and (*crab*), 87, 210; (*frog*), 88, 241
tetra-ethyl-ammonium iodide action on (*frog*), 91, 110
time factor and temperature effect on (*frog*), 87, 23*P*
acetylcholine distribution in, 93, 34*P*
in various types of (*mammal*), 99, 437
action potential. *See* Nerve action potential
'after-positivity' and recovery heat in (*frog*), 91, 293
after potentials, persistence of, 92, 39*P*
veratrine and yohimbine action on (*Maia*), 83, 447
all-or-none response in (*frog*), 61, 164
alternating current stimulation of, 84, 2*P*; 86, 47*P*
bent, excitation of (*frog*), 65, 173
block, electrotonic potentials and excitability time curve beyond (*frog*), 90, 212
excitability increase beyond (*frog*), 90, 191
soleus reflexes and (*cat*), 67; 33
chemical transmission, Du Bois-Reymond and, 91, 4*P*
chronaxie, stimulation medium affecting (*frog*), 73, 236
strychnine effect on (*frog*), 88, 330
variability of (*frog*), 76, 110
conduction. *See* Nerve conduction
constant current affecting multiple response in (*frog*), 88, 239
cosine relation of stimulating current to (*frog*), 63, 370
current distribution in (*frog*), 65, 173
with electrode distance on (*frog*), 81, 41*P*
decrementless conduction in (*toad*), 64, 193
degeneration, bone overgrowth in vitamin A deficiency and, 93, 42*P*; (*dog*), 96, 38*P*
spinal transection affecting (*monkey*), 77, 18*P*
depolarization (*crustacean*), 65, xxvii
anaerobiosis or stimulation production of (*crustacean*), 67, 325
electric response, high frequency stimulation effect on (*frog*), 83, 398
single and repeated stimuli effect on (*Maia*), 87, 158
to two stimuli in (*frog*), 68, 1
electrical transmission in and evidence for (*frog*), 90, 183, 211

Nerve, electrotonic effects with high frequency stimulation of, 83, 14*P*
electrotonic potential, strength-duration curve of, 84, 11*P*
electrotonus development and spread in (*frog*), 82, 353
eserine and prostigmine effect on action current of (*frog*), 93, 234
excitability. *See* Nerve excitability
excitation. *See* Nerve excitation
excitatory disturbance time course following short stimulus to (*frog*), 90, 6*P*
gamma substance in muscle identity with (*frog*), 75, 169
giant fibre structure (*Sepia*), 83, 27*P*
heat production. *See* Nerve heat production
high-frequency alternating current excitation of (*frog*), 96, 202
high-frequency stimulation effect on (*frog*), 86, 255
and refractory state of (*frog*), 83, 416
high-frequency and low-frequency stimulation effects on (*frog*), 83, 408
hyperventilation effect on chronaxie of (*rabbit*), 96, 109
impulse. *See* Nerve impulse
'inhibition' in (*frog*), 80, 441
injury discharge, excitation state of nerve affecting (*cat*), 85, 15*P*
intensity/frequency relation in stimulation of (*frog*), 96, 209
iodoacetate action on (*frog*), 76, 479
irritability of (*crab*), 83, 24*P*
lactic acid function in activity of (*frog*), 76, 477
lesions, vitamin A deficiency effect on bone overgrowth and (*dog*), 99, 487
local response in (*crab*), 91, 5*P*
refractory period in (*squid*), 98, 50
mathematics of current distribution in (*frog*), 82, 346
monophasic action potentials from, 95, 61*P*
narcotised, recovery in (*frog*), 61, 311
optimal stimulus for (*crustacean*), 77, 112
oxygen lack on heat production of (*frog*), 63, 280
permeability change on stimulation of (*theoretical*), 100, 117
potassium action causing discharges in (*cat*), 96, 10*P*
pressure block effect on (*cat*), 61, 359
quaternary ammonium salts action on (*crab, frog*), 79, 75
reaction time with intensity of stimulation (*eel*), 64, 231
Nerve, recovery from stimulation of (*frog*), 86, 181
recovery heat and positive after-potential in (*frog*), 91, 223
recovery rate in (*frog*), 68, 1
refractory period. *See* Nerve refractory period
resistance and inter-polar length relation in (*frog*), 82, 341
mathematics of (*frog*), 63, 362
relation to interpolar length in (*frog, crab*), 96, 85
resting heat production of (*frog*), 75, 170
reversible inexcitability of (*crab*), 67, 158; (*crustacean*), 67, 340
rheobase, tetra-ethylammonium iodide action on (*frog*), 91, 106
sensory. *See* Sensory nerve
sheath structure in (*Maia*), 85, 2*P*
size, conduction rate and (*frog*), 67, 185
strength-duration curve (*crab*), 83, 23*P*; (*Sepia*), 83, 427; (*frog, mammal*), 84, 53; (*invertebrate*), 84, 62
calculation of, 83, 30*P*
with constant excitation of, 83, 20*P*
with repetitive stimuli to (*frog*), 82, 321
strength-frequency relation for constant A.C. electrotonus in (*frog*), 86, 4*P*
summation, excitability changes in (*squid*), 98, 58
temperature effect on asphyxiation of (*frog*), 92, 43*P*
tetra-ethylammonium iodide action on electric response and accommodation of (*frog*), 91, 101
threshold, current strength relation to, 75, 16*P*
veratrine effect on action currents of (*crab*), 77, 27*P*
on heat production of (*frog*), 77, 25*P*
veratrine, curare and strychnine actions on (*frog*), 79, 67
vitamin A deficiency effect on (*rat*), 93, 206
Nerve action potential (*crustacean*), 63, 113
adrenaline action on (*cat*), 99, 201
double motor innervation and (*crayfish*), 88, 94
electrolyte content and (*squid*), 98, 299
eserine and prostigmine action on (*frog*), 93, 234
heat production relationship (*frog*), 66, 183
Matthews oscillograph and (*frog*), 65, 240
non-electrolyte action on (*frog*), 84, 83
quaternary ammonium salts action on (*crab, frog*), 84, 90

Nerve action potential wave, analysis of (*frog*), 68, 19
*See also* Nerve Impulse
Nerve conduction, cutaneous and proprioceptive comparison (*frog*), 67, 182
decrement in (*frog*), 61, 305
narcotics action on (*frog*), 61, 305
single end organ preparation and narcotics action on (*frog*), 73, 382
tactile and noxious stimuli affecting rate of (*cat*), 95, 15
velocity (*Maia*), 83, 444
adjacent fibre impulse effect on (*crab*), 97, 481
giant axon and (*squid*), 98, 31
outside electrical resistance relation to (*crab, squid*), 94, 560
Nerve excitability, adjacent fibre impulse affecting (*crab*), 96, 9*P*; 97, 477
block effect on (*frog*), 90, 191
constant current make shock and (*Maia*), 87, 67
electrotonus effect on (*frog*), 89, 32
high-frequency A.C. effect on (*frog*), 96, 216
local response relation to (*squid*), 98, 50
time curve and electrotonic potentials in (*frog*), 90, 212
Nerve excitation, capacitative theory of, 92, 38*P*
electrode distance on time constant of, 85, 10*P*
high-frequency (*frog*), 83, 383
injury discharge affected by state of (*cat*), 85, 15*P*
length between electrodes and (*frog*), 63, 360
multipolar electrodes for (*frog*), 66, 217
state, high-frequency stimulation 'inhibitory' effect on (*frog*), 83, 407
strychnine effect on time constants of (*frog*), 86, 67*P*
threshold and inter-polar length relation in (*frog*), 82, 332
Nerve heat production (*frog*), 71, 136
and action current relationship in (*frog*), 66, 183
analyses (*crustacean*), 77, 111; (*cat*), 86, 29
frequency of stimulation effect on (*frog*), 63, 130; 83, 383
and 'inhibition' in (*frog*), 80, 444
in two phases in (*frog*), 62, 349
Nerve impulse, adjacent fibre affected by (*crab*), 97, 471
catelectrotonus in transmission of (*frog*), 89, 11*P*
Nerve impulse, constitution rate of temperature and pain (*frog*), 74, 17*P*
frequency, cocaine action on (*frog*), 73, 395
muscle load relation to (*frog*), 71, 73
'frequency following' to vibratory stimulus to tooth (*cat*), 97, 221
ganglion potential change relation to (*Dytiscus*), 72, 139
giant fibres and (*earthworm*), 77, 23*P*
hair stimulation resulting in (*crab*), 71, xii
initiation of, 90, 8*P*
narcotics action on conduction of (*frog*), 61, 305
pacinian corpuscle excitation and (*cat*), 68, 139
propagation of (*frog*), 90, 183
skeletal muscle response to (*cat*), 97, 44
slow and fast types of (*frog*), 84, 250
specific (*frog*), 67, 169
sympathetic nerves and (*mammal*), 74, 115
vascular changes affecting transmission of (*dog*), 97, 250
velocity (*caterpillar*), 70, xxxiv
measurement of, 94, 21*P*
osmotic pressure changes effect on (*Maia*), 87, 89*P*
Nerve refractory period, anoxaemia effect on (*frog*), 68, 13
frequency of stimulation effect on (*frog*), 83, 403
high-frequency stimulation effect on (*frog*), 83, 18*P*, 26*P*
narcotics action on (*frog*), 73, 394
sensory end-organ stimulation and (*frog*), 72, 400
temperature effect on (*frog*), 69, 60
Nerve cell, Nissl granules affected by fatigue of (*cat*), 94, 184
potential waves from (*goldfish*), 71, 133
synaptic transmission in absence of (*squid*), 93, 43*P*
Nerve fibre, diameter and conduction rate in (*cat*), 95, 18
interaction between adjacent (*carcinus*), 100, 369
single, local action potential spread in (*crab*), 92, 41*P*
Nerve-heart preparation (*dogfish*), 69, 34
Nerve-muscle complex, rate of stimulation affecting response of (*crustacea*), 73, 27
Nerve-muscle isochronism, evidence of (*frog*), 73, 189
Nerve-muscle preparation, curarine action on response to stimulation of (*frog*), 93, 246

Nerve-muscle preparation, taurine action on response to stimulation of (*frog*), 93, 220
high-frequency field effect on (*frog*), 90, 33*P*
hordenine compounds action on (*cat*), 92, 427
quaternary ammonium salts action on (*crab*), 84, 97
stimulation rate affecting response of (*frog*), 93, 235
Nervous system, wheat germ toxic action on (*dog*), 61, xxv
Neuro-muscular block, catelectrotonus action on (*frog*), 95, 288
catelectrotonus reversal of (*frog*), 92, 20*P*
Neuro-muscular conduction, curarine small dose effect on (*cat*), 92, 23*P*
facilitation in (*toad*), 92, 24*P*
tetanus effect on (*toad*), 93, 293
Neuro-muscular contracture, alpha substance and (*frog*), 75, 447
nature of (*amphibia*), 67, xxix; (*frog*), 76, 73
Neuro-muscular delay, plain muscle electrical response and (*cat*), 90, 38
Neuro-muscular disorders, prostigmin action in (*man*), 84, 26*P*
Neuro-muscular isochronism, curare action and (*frog*), 61, 113
strychnine curarisation action and (*frog*), 88, 338
Neuro-muscular junction, abortive impulses at (*cat*), 100, 318
acetylcholine block and electrical stimulation of (*lizard*), 95, 59*P*
excitatory actions at, 95, 32*P*
facilitation decay rate in (*frog*), 95, 290
fatigue effect on (*frog*), 76, 116
inhibitory actions at, 95, 34*P*
magnesium curarising effect on (*crab*), 86, 14*P*
tetanus toxin action on (*cat*), 96, 351
Neuro-muscular system, double response in (*crustacea*), 73, 25
Neuro-muscular transmission, calcium in diet effect on (*goat, chick*), 97, 330
eserine compounds effect on (*frog*), 93, 230
factors affecting (*crab*), 86, 45*P*; (*dog*), 95, 49*P*
factors concerned in (*crab*), 87, 199
ocular muscles and (*cat*), 99, 379
potassium and tetanus after-effects on (*cat*), 93, 53
quinine action on (*various*), 95, 53
refractory state in (*cat*), 97, 61
single and double nerve volley effect on (*cat*), 97, 44
Neuro-muscular transmission, substances affecting (*frog*), 86, 61*P*
Neurones, pulsation in cerebral cortex of (*rabbit*), 81, 455
New-born, bone composition in (*mammal*), 83, 49*P*
haemoglobin denaturation rate of (*man*), 86, 326
urine secretion in (*man*), 99, 285
warming effect on blood oxygen saturation in (*sheep*), 90, 28*P*
Nicotine, adrenalectomy effect on blood pressure response to (*cat*), 94, 150
antidromic volley on sympathetic ganglion affected by (*cat*), 89, 5
bronchomotor response to sympathetic stimulation affected by (*guinea-pig*), 99, 62
facilitation in sympathetic ganglion affected by (*cat*), 85, 220
ganglionic after-potentials affected by (*cat*), 96, 123
inferior mesenteric ganglion impulse transmission affected by (*cat*), 91, 300
inhibition in sympathetic ganglion affected by (*cat*), 85, 230
intra-ocular pressure affected by (*dog*), 71, 19
pulmonary circulation affected by (*mammal*), 67, 77
spinal cord activity affected by (*dog*), 100, 349
spinal cord affected by (*cat*), 94, 138
sympathetic ganglion action potentials affected by (*cat*), 85, 199
affected by (*cat*), 83, 119
*N* and P potential waves affected by (*cat*), 85, 476
Nictitating membrane, action potentials with nerve stimulation to (*cat*), 86, 57*P*
adrenalectomy effect on fatigue with stimulation of (*cat*), 94, 281
adrenaline action on electrical response of (*cat*), 87, 87*P*
adrenaline sensitization by ganglion denervation (*cat*), 91, 280
chemical agent in sympathetic stimulation of (*cat*), 89, 296
cholinergic sympathetic nerve supply to (*cat*), 87, 76*P*
denervated, responses of (*cat*), 89, 45*P*
denervation effect on response to adrenaline and tyramine of (*cat*), 91, 459
electrical and mechanical response to stimulation of (*cat*), 90, 21
ephedrine action on (*mammal*), 84, 334
rhythmic responses in (*cat*), 90, 68

nictitating membrane, sympathetic stimulation on contraction of (*cat*), 81, 229
nissl granules, ganglia stimulation effect on (*cat*), 94, 134
nitrite, adenosine action comparison with (*mammal*), 72, 316
heart and action of (*dog*), 64, 376
lactic acid on vaso-dilator action of (*cat*), 65, 175
pancreatic secretion affected by (*cat*), 100, 89
spleen response after denervation (*mammal*), 99, 128
temperature effect on circulation response to (*frog*), 75, 40
Nitrogen balance, thyroxine and exercise effect on (*dog*), 74, 381
bone marrow saturation rate with (*goat*), 75, 22*P*
excretion, basal metabolism correlation with (*man*), 65, 246
blood base level effect on (*man*), 99, 372
exercise effect on (*man*), 75, 69
glucose infusion rate effect on (*dog*), 90, 442
metabolism, exercise effect on (*man*), 82, 184
pressure in fluids, measurement of, 61, 232
retention in body after protein ingestion (*man*), 72, 327
tissue content and its removal by oxygen (*mammal*), 71, 309
Nitrous oxide, carbohydrate metabolism affected by (*cat*), 80, 1
Nomogram, expired air and respiratory quotient, 66, 134
Nose, air-way measurement in, 85, 19*P*
respiratory cycle affected by stimuli to (*dog*), 80, 278
Novadrenine, absence in adrenal medulla of (*mammal*), 79, 465
adrenaline comparison with (*cat*), 76, 181
non-existence of (*mammal*), 78, 462
Novocaine, slow and fast nerve impulses affected by (*frog*), 84, 256
Nucleic acid derivatives, coronary blood flow affected by (*dog*), 79, 6*P*
heart affected by (*mammal*), 67, xv
heart beat affected by (*rabbit*), 74, 147
Numal, blood sugar and liver glycogen affected by (*cat*), 76, 403
glucose tolerance affected by (*mammal*), 73, 298
Nutrition, ketonaemia in pregnancy relation to (*sheep*), 97, 123
N wave, antidromic volley on sympathetic ganglion and (*cat*), 88, 14
N wave, inferior mesenteric ganglion and (*cat*), 91, 309
Nystagmus, central origin of (*cat*), 97, 8

Occlusion, crossed extensor reflexes and (*cat*), 67, 109
Octyl alcohol, heart electrical response with (*frog*), 69, 327
Ocular muscle balance, measurement of (*man*), 65, xx
double function of (*man*), 95, 62*P*
neuro-muscular transmission in (*cat*), 99, 379
nystagmus and afferent impulses from (*cat*), 97, 12
Odours, brain activity resulting from (*hedgehog*), 100, 464
Oedema, capillary permeability and perfusion (*frog*), 98, 109
posture effect on (*man*), 72, 127
Oedema fluid, protein changes in sexual skin (*monkey*), 94, 22
Oesophageal reflexes (*man*), 65, 157
Oesophagus, innervation of (*cat*), 81, 6*P*
nausea and movements of (*man*), 65, 158
nerve-muscle preparation of (*cat*), 65, xxxv
parasympathetic action on (*Amphibia*), 75, 100
sympathetic action on striped muscle of (*cat*), 82, 3*P*
tonus and pain in (*man*), 63, 217
Oesophagus-vagus nerve-muscle preparation (*rabbit*), 86, 17*P*
Oestrin, abortion produced with oxytocin and (*mouse*), 84, 122
acetylcholine content of uterus after ovariectomy and (*rabbit*), 95, 258
adrenal cortex after ovariectomy affect on action of (*rat*), 92, 13*P*
assay of (*mouse*), 67, 389
oil absorption and (*rodent*), 78, 155
uterine weight after ovariectomy and (*rat*), 85, 223
corpus luteum action on uterus with (*rabbit*), 76, 143
maintenance after hypophysectomy by (*rabbit*), 90, 435
production of (*cow*), 64, 237
destruction in circulation of (*H-L*), 67, 381
lactation and action of (*mouse*), 62, 301
location in ovary of (*mammal*), 61, 582
male urine and occurrence of (*mammal*), 67, 377
oestrus cycle production after ovariectomy by (*rat*), 92, 13*P*
oestrus production and dosage of (*mouse*), 69, 372

**Oestrin**, oxytocin action on isolated uterus with (*guinea-pig*), 77, 4*P*
on uterus after injections of (*rabbit*), 79, 139
on uterus with (*rabbit*), 84, 143
oxytocin synergism on uterine in pregnancy to (*mouse*), 84, 152
pituitrin action on uterus with (*guinea-pig*), 76, 137
placenta and occurrence of (*mammal*), 62, 336
pregnancy affected by (*mouse*), 62, 145; 69, 466
pregnancy maintenance after hypophysectomy with (*rabbit*), 92, 11*P*; 95, 82
pseudo-pregnancy affected by (*mouse*), 72, 62
red blood cell count affected by (*monkey*), 91, 271
renal excretion of (*H-L-K*), 67, 380
species variation in sensitivity to (*monkeys*), 84, 191
standardization of (*rat, mouse*), 63, 270; (*rat*), 68, 348
tissue extracts containing (*mammal*), 87, 28*P*
triphenyl ethylene comparison with (*rabbit*), 92, 402
urinary secretion affected by (*man*), 92, 3*P*
uterine bleeding resulting from (*monkey*), 87, 51*P*
uterine metabolic rate affected by (*rat, mouse*), 72, 13*P*
uterine reaction to oxytocin *in vivo* and *in vitro* affected by (*rabbit*), 85, 148; (*guinea-pig*), 88, 318
uterus affected by oxytocin with (*guinea-pig*), 79, 301
uterus contractions affected by (*mammal*), 78, 18*P*
uterus sensitization to progestin by (*rabbit*), 83, 150
uterus size and reactivity after injection of (*rabbit*), 79, 139
vaginal mucification produced by (*mouse*), 71, xii
water-balance affected by (*monkey*), 91, 272
**Oestriol glucuronide**, vitamin-B deficient adult anoestrus rat affected by, 96, 274
**Oestrogen**, anterior pituitary function affected by (*rat*), 94, 177
male pubic bone separation resulting from (*mouse*), 85, 159
oral administration and activity of (*mouse*), 94, 23*P*
**Oestrogen**, pregnancy after hypophysectomy affected by progesterone and (*rabbit*), 97, 517
testis, comb and thyroid affected by prolonged dosage of (*fowl*), 95, 382
**Oestrone**, comb response to massive dosage of (*fowl*), 92, 27*P*
progesterone antagonism on uterus to (*rabbit*), 88, 100
prostate affected by (*primate*), 84, 15*P*
uterine movements in unloaded state affected by (*rabbit*), 99, 356
uterine reaction to oxytocin affected by (*mouse*), 92, 132
vaginal pH affected by (*monkey*), 89, 96
**Oestrus**, corpus luteum inhibition of (*mice, cow*), 64, 239
cycle. *See* **Oestrus cycle**
ferret and course of, 65, xvii
follicle growth and regression during (*rabbit*), 80, 174
oestrin assay in relation to (*mouse*), 67, 399
oestrin dosage required for production of (*mouse*), 69, 372
ovarian extract injections and maintenance of (*mouse*), 63, 180
oxytocin action on uterus during (*rat*), 90, 365
pituitary ovulation hormone content in (*rabbit*), 83, 130
placenta inhibition of (*mouse*) 84, 196
pseudo-pregnancy and production by oestrin of (*mouse*), 72, 64
temperature effect on (*mouse*), 64, 388
testosterone and progesterone inhibition of (*mouse*), 90, 15*P*
thymectomy affecting onset of (*rat*), 74, 59
vitamin-B deficient adult rat as test animal for hormones inducing, 96, 248
**Oestrus cycle**, adrenal cortical extract action on (*mouse*), 76, 196
adrenal gland changes with (*rat*), 76, 247
adrenal medulla and (*rat*), 61, iii
duration and signs of (*baboon*), 69, xxxi
hysterectomy effect on (*ferret*), 78, 80
oestrin maintenance after ovariectomy of cyclic (*rat*), 92, 12*P*
teat growth effected by (*goat*), 99, 3*P*
testosterone and progesterone inhibition of (*mouse*), 92, 371
uterine reaction to oxytocin in (*mouse*), 82, 109
vitamin-A deficiency effect on (*rat*), 67, 28; 69, 349

Oestrus-producing hormone, standardisation of (*rat*), 83, 248
Off-effect, inhibition in retinal and optic nerve response of (*frog*), 81, 47*P*
retina and optic nerve discharges comparison (*frog*), 83, 385
retinal action potentials and analysis of (*frog*), 91, 127
retinal responses with stimuli superimposed on (*frog*), 81, 11
Oils, subcutaneous rate of absorption of (*rodent*), 78, 155
Oil-water emulsion, toxin adsorption by, 87, 9*P*
Olfactory bulb, breathing and odours effect on activity of (*hedgehog*), 100, 466
Olfactory stalk, action potentials with stimulation of sac (*fish*), 94, 441
Olfactory tract, breathing and odours effect on activity of (*cat*), 100, 469
Oligocythaemia, urease injection causing (*cat*), 96, 74
Olive oil, subcutaneous rate of absorption of (*rodent*), 78, 156
Onium salts. *See* Quaternary ammonium salts
Operating board, improved model for small mammals, 99, 157
Operating table with thermoregulator, 91, 10*P*
Ophthalmic artery, pressure in (*cat*), 62, 7
Opossum, insulin action on liver glycogen, 75, 29
Optic ganglion, nerve discharges from (*Dytiscus*), 75, 26*P*
synchronised reactions in (*Dytiscus*), 91, 66
Optic lobe, potential waves from (*goldfish*), 71, 128
Optic nerve action potentials, light and dark rhythm in (*Dytiscus*), 91, 69
discharges in (*eel*), 63, 383
retinal action potentials relation to (*cat*), 77, 224
fibre arrangement in (*conger eel*), 63, 411
impulses in (*conger eel*), 63, xxiii
retina action potentials comparison with discharge of (*frog*), 83, 389
retinal stimulation and reaction time of, 64, 279
rhythmic discharge with steady illumination (*eel*), 65, 275
Optic thalamus, panting centre located in (*dog*), 77, 323
Orbeli phenomenon, blood flow relation to (*dog*), 95, 213
evidence of (*frog*), 78, 161
tetanus after effects and (*cat*), 93, 51
Orbicularis muscle, intra-ocular pressure changes with contraction of (*dog*), 71, 27
Ornithine, urea formation in perfused liver from ammonia and (*rat*), 100, 447
Orthopteris, normal distribution of (*man*), 65, x
Oscillograph, Matthews, description of, 65, 235
moving coil type, 87, 3*P*
Osmotic pressure, nerve impulse velocity affected by (*Maia*), 87, 89*P*
Osmotic work, gill activity and (*eel*), 75, 236
Osteoblast, vitamin-A effect on activity of (*dog*), 99, 481
Osteoclast, parathyroid hormone action on (*rat*), 79, 114
vitamin-A effect on activity of (*dog*), 99, 481
'Outline method', gastric motility studied by (*dog*), 79, 423
Ova, lipoid substances in ovary during production of (*frog*), 91, 394
Ovalocytes, disk-sphere transformations of (*man*), 95, 13*P*
Ovarian cyst, fluid analysis by surface tension measurement, 92, 156
Ovarian extract, oestrus maintained by injections of (*mice*), 63, 180
Ovarian graft, androgenic activity of (*rat*), 92, 34*P*
Ovarian hormones, corpus luteum oestrus-inhibiting (*cow, mice*), 64, 233
endocrine glands weight affected by (*rat*), 83, 15
uterine reaction *in vivo* and *in vitro* to (*rabbit*), 85, 145
Ovariectomy, androgens action following (*mouse*), 93, 416
genital organ development affected by (*rat*), 75, 39*P*
lactation and oestrin action following (*mouse*), 63, 312
oestrin assay in relation to (*mouse*), 67, 394
pregnancy continuation and (*mouse*), 65, 346
uterine acetylcholine content with oestrin after (*rabbit*), 95, 258
uterine reaction to oxytocin following abortion due to (*mammal*), 86, 173
and oestrin following (*guinea-pig*), 79, 305
vaginal response to androgens and progesterone after (*mouse*), 92, 374
Ovary, anterior pituitary extract affecting (*rabbit*), 67, xxxii

Ovary, anterior pituitary and P.U. extracts in prolonged treatment effect on (*rat*), 69, 110
cholesterol content of (*rabbit*), 68, 261
gonadotropic hormones action after hypophysectomy (*rabbit*), 90, 137
lipoid substances increase during ova production in (*frog*), 91, 394
oestrus-producing extract from (*mammal*), 61, 353
pressor substance in (*pig*), 66, 421
progesterone and testosterone action on (*Xenopus*), 89, 38*P*
pseudo-pregnancy and oestrin effect on (*mouse*), 72, 66
testosterone action after hypophysectomy on (*mouse*), 93, 16*P*
tissue culture of (*chick*), 63, VI
Overflow diabetes, nature of (*dog*), 87, 85*P*
Overventilation, alveolar air aqueous vapour pressure affected by (*man*), 77, 41
blood pH and carbon dioxide relation to (*man*), 74, 482
blood pressure changes with (*man*), 66, 307; (*cat*), 70, 301
gastric secretion affected by (*dog*), 75, 347
lactic acid production with (*F-L-Limb*), 70, 265
nerve chronaxie affected by (*rabbit*), 96, 109
respiratory nervous impulses during (*cat*), 61, 364
respiratory quotient changes with (*cat*), 66, 410; 69, 115
skin vessel activity in (*man*), 64, XXIII
Ovulation, age effect on dose of P.U. required for (*mouse*), 75, 44
anterior pituitary extract effect on (*rabbit*), 67, XXXIII
action after hypophysectomy (*rabbit*), 69, XXIII
induction of (*ferret*), 80, 78
anti-gonadotrophic serum effect on (*rabbit*), 88, 305
inhibiting action on (*rabbit*), 87, 29*P*
blood dilution and cross-circulation effect on (*rabbit*), 79, 180
central nervous system stimulation resulting in (*rabbit*), 86, 327
chicago blue effect on (*rabbit*), 74, 71
copper acetate injection production of (*rabbit*), 100, 231
gonadotropic hormone effect after hypophysectomy (*rabbit*), 90, 137
hormone concentration necessary for (*rabbit*), 74, 173
Ovulation, hypophysectomy and anterior pituitary extract inducing (*rabbit*), 71, 26
effect on (*rabbit*), 67, 336
hysterectomy effect on (*ferret*), 78, 81
lactation with induced oestrus and (*mouse*), 62, 208
nervous system stimulation effecting (*rabbit*), 85, 13*P*
petrosal nerve destruction effect on (*rabbit*), 100, 411
pierotoxin stimulation of (*rabbit*), 97, 128
placental and pregnant urine extracts on (*rabbit*), 71, 40
P.U. extract assay in repeated tests on (*rabbit*), 81, 338
P.U. in hypophysectomised animals causing (*rabbit*), 72, 15*P*
pseudo-pregnancy and production by oestrin of (*mouse*), 72, 68
vaginal anaesthesia effect on (*rabbit*), 70, 385
Ovulation hormone, gonadectomy effect on pituitary production of (*rabbit*), 83, 141
pituitary gland production in reproduction cycle (*rabbit*), 83, 129
Ovulation-producing hormone, cross circulation demonstration of (*rabbit*), 79, 183
substance, assay of (*rabbit*), 81, 335
Ovulation test, rabbit and mouse or rat comparison of, 81, 356
Ovulation time, copulation relation to (*rabbit*), 67, 335
Ovum, corpus luteum development independent of (*mammal*), 81, 472
Ox, myohaemoglobin and methaemoglobin formation, 69, 213
oxygen diffusion rate into red blood cells, 73, 354
Ox liver, anti-diuretic substance in, 78, 18*P*
and lung, histamine content of, 62, 400
choline content, 62, 410
Ox muscle, phosphate in rigor buffering, 92, 340
Oxalate, blood cell fragility in hypotonic plasma affected by, 83, 37
red blood cell permeability and (*rabbit*), 61, 114
skeletal muscle rhythmic discharges stimulated by (*frog*), 78, 279
Oxidase poisons, auricle affected by (*frog*), 89, 324
Oxygen acclimatization, haemoglobin and (*mammal*), 63, 328
air-tissue relationship of (*rabbit*), 66, II

Oxygen, administration, box mask for (*man*), 87, 88*P*
face tent for (*man*), 89, 18*P*
subcutaneous and intraperitoneal routes of (*dog*), 64, xxxviii
arterial blood-alveolar air relationship in (*man*), 68, 285
brain and tension of (*man, cat*), 100, 192
consumption. *See* Oxygen consumption
debt, heart and (*frog*), 66, 195
lactic acid changes in mild exercise in relation to (*man*), 69, 225
diffusion rate into red blood cells of (*cat*), 73, 354
dissociation curve. *See* Oxygen dissociation curve
haemoglobin equilibrium, nature of, 71, 250
intravenous absorption and increased atmospheric pressure effect on (*mammal*), 84, 315
lack. *See* Oxygen lack
nitrogen removal from body by (*man*), 71, 314
pleura and diffusion of (*cat*), 82, 419
poisoning, carbon dioxide transport and (*dog*), 72, 27
nervous structures concerned in (*dog*), 94, 294
temperature effect on (*rat*), 89, 17*P*
thyroid gland relation to (*rat*), 90, 91*P*
pressure (or tension). *See* Oxygen pressure
rate of uptake by red blood cells of (*sheep*), 62, 232
skeletal muscle sense organ fatigue and (*frog*), 67, 279
tissues and tension of (*mammal, cold-blooded*), 61, 248
transport, high altitude effect on (*man*), 74, 60
Oxygen consumption, acetyl thyroxine effect on (*rat*), 68, 398
alanine action on (*rat*), 68, 395
apparatus for small animals, 66, 299
for stimulated muscle (*frog*), 98, 207
auricle, factors affecting (*amphibia*), 68, 406
with ionic changes (*frog*), 68, 433
brain, vitamin-$B_1$ effect on (*pigeon*), 72, 32*P*
carbohydrate usage by heart in relation to (*frog*), 75, 314
diastolic volume of heart and (*dog*), 62, 251
differential volumetric method for time-course in stimulated muscle of (*frog*), 96, 17*P*
Oxygen consumption, evisceration effect on (*cat*), 68, 273
exercise 'skill index' and (*man*), 69, 294
foetal age and changes in (*goat*), 82, 507
foetus and (*sheep*), 98, 269
and direct measurement of, 93, 21*P*
gill and fin (*eel*), 77, 277
glucose infusion rate effect on (*dog*), 90, 445; 91, 145
heart (*dog*), 63, 302; (*frog*), 66, 195; (*H-AL*), 79, 210
and diastolic volume relation to (*dog*), 63, 302; (*frog*), 66, 188
insulin action on (*dog*), 62, 345
venous pressure effect on (*dog*), 65, 42
iodide action on (*dog*), 65, xxxiii
kidney (*dog*), 65, 100
arterial pressure effect on (*P-L-K*), 96, 87
diuretics effect on (*P-L-K*), 97, 383
sulphate effect on (*H-L-K*), 67, 14
oxygen poisoning effect on (*dog*), 72, 36
oxygen pressure and (*mammal*), 63, 336
panting effect on (*dog*), 77, 31
pH effect on (*rabbit*), 91, 43
plain muscle (*Mytilus*), 87, 58; (*frog, Mytilus*), 98, 20
plasma pH effect on (*rabbit*), 91, 43
protozoa and, 65, 11
red blood cells (*sheep*), 62, 232
running and walking effect on (*man*), 81, 255
skeletal muscle (*frog*), 98, 207; (*dog*), 99, 182, 283
tetanus in muscle and (*frog*), 98, 212
thyroid effect on (*azoicol*), 64, 287
thyronine action on (*rat*), 68, 400
thyroxine action on (*rat*), 68, 391
uterus in pregnancy (*rabbit*), 83, 215
and foetal growth (*rabbit*), 77, 201
ventricle (*amphibia*), 68, 412; (*tortoise*), 73, 247
*See also* Metabolic rate
Oxygen dissociation curve, dilute blood and haemoglobin solutions and (*mammal*), 71, 229
dilute haemoglobin and (*horse*), 71, 261
embryo growth and changes in (*chick*), 83, 223
foetal blood and (*goat*), 62, 378
foetal and maternal (*cow*), 92, 257
comparison of (*man*), 87, 99
comparison spectroscopically (*mammal*), 82, 33
haemoglobin (*goat*), 80, 208
with duration of pregnancy (*goat*), 83, 199

**Oxygen dissociation curve**, haemoglobin and haemocyanin comparison of, 79, 168
high altitude effect on (*man*), 71, 49
low oxygen pressure effect on (*man*), 82, 374
species differences in (*mammal*), 86, 77
with dilute blood and (*mammal*), 71, 249
spectroscopic method for micro-determination of, 80, 503
**Oxygen lack**, capillary permeability affected by (*man*), 87, 74*P*
carotid sinus essential for response to (*cat*), 95, 43*P*
carrot diet effect on resistance to (*rat*), 93, 31*P*
dietary factors concerned in resistance to (*rat*), 95, 1*P*
heart usage of sugar and lactate affected by (*H-L*), 80, 28
knee jerk affected by (*cat*), 88, 468
liver haemopoietic substance formation in (*rabbit*), 84, 454
protein effect on resistance to (*rat*), 95, 28*P*
respiration affected by (*frog*), 95, 316
zein effect on resistance to (*rat*), 96, 33*P*
*See also* Anaerobiosis and Anoxaemia
**Oxygen pressure**, blood carbon dioxide tension affected by (*man*), 67, 57
blood reaction to changes in (*rabbit*), 62, 217
carbon dioxide tension in tissues affected by (*rabbit*), 68, VII
carbon monoxide poisoning and (*rabbit*), 68, 91
deficient acclimatization to low (*man*), 82, 369
egg incubation and air space (*hen*), 94, 370
exercise affected by (*man*), 62, XV
gall bladder and (*mammal*), 77, 7*P*
haemoglobin and tissue (*rabbit*), 65, 256
heart metabolism affected by (*frog*), 77, 432
high altitude and alveolar air-arterial blood equilibrium of (*man*), 71, 53
measurement in fluids, 61, 232
temperature, hormones and drugs affecting action of (*mammal*), 92, 29*P*
tissue oxygen and (*mammal*), 63, 332
**Oxygenator**, blood oxygen saturation with, 66, 446
closed circuit type of (*dog*), 95, 49*P*
fine spray type, 74, 2*P*
lung perfusion compared with (*P-L-K*), 72, 344
magnetic type of, 82, 28
**Oxygenator-heart preparation**, factors in stability of, 77, 10*P*
**Oxyglucose**, toxic action of (*mammal*), 66, 387
**Oxyhaemocyanin**, buffering power of (*Maia*), 62, 67
**Oxyhaemoglobin**, carbamino compound of, 83, 91
crystals, preparation of (*ox*), 64, XXV
intermediate compounds of, 71, 257
isoelectric point of (*sheep*), 71, 323
titration curves of (*sheep*), 71, 324
**Oxytocin**, abortion produced with oestrin and (*mouse*), 84, 122
anti-diuretic action of (*H-L-K*), 67, XXIV
anti-diuretic potency of (*man, dog*), 68, 238
blood in pregnancy containing (*mammal*), 84, 351
blood pressure affected by (*fowl, cat*), 65, 435
cervix uteri affected by (*mammal*), 89, 309
cornua and cervix of pregnant uterus response to (*goat*), 81, 278
fate in body of injected (*cat*), 87, 147
hepatic circulation affected by (*dog*), 76, 166
oestrin action on isolated uterus affected by (*guinea-pig*), 77, 4*P*
on uterus with (*rabbit*), 84, 148
oestrin interaction on abortion with (*mouse*), 69, 489
oestrin synergism on uterus in pregnancy to (*mouse*), 84, 133
pH effect on stability of (*guinea-pig*), 96, 342
pregnancy and uterine reaction to (*man*), 79, 83
pregnancy effect on uterine reaction *in vivo* to (*guinea-pig*), 100, 266
uterine blood flow and contractions with (*cat*), 92, 12
uterine reaction. *See* Oxytocin, uterine reaction
uterine sensitivity in pregnancy to (*rabbit*), 78, 309
*in vivo* and *in vitro* to (*rabbit*), 84, 45*P*
**Oxytocin, uterine reaction** affected by progesterone and oestrone (*rabbit*), 88, 104
affected by various hormones (*mouse*), 92, 131
after oestrin injections to (*rabbit*), 79, 139; (*guinea-pig*), 79, 301
following abortion to (*mammal*), 86, 171
in oestrus and pregnancy to (*mouse*), 82, 105; (*rat*), 90, 385

Oxytocin, uterine reaction in pregnancy and pseudo-pregnancy to (*rabbit*), 81, 372
*in vivo* and *in vitro* to (*guinea-pig*), 68, 318
with oestrin and (*rabbit*), 85, 148
with oestrin and progesterone to (*cat*), 92, 5

Pacemaker, activity of (*dog*), 75, 28*P*
vagi separate actions on (*cat*), 82, 242
Pacinian bodies, nerve supply to mesenteric (*cat*), 73, 1*P*
Pacinian corpuscle, impulse discharge from (*cat*), 68, 139
Pain, cutaneous nerve regeneration and (*man*), 63, VIII
impulses, time relations of (*cat*, *frog*), 62, 41
nerve impulse conduction rate and (*frog*), 74, 17*P*
frequency and (*frog*), 72, 388
oesophageal contraction and (*man*), 65, 167
receptors, sensory impulses from (*cat*, *frog*), 62, 33
sensory nerve action potentials associated with (*cat*), 95, 9
stretch receptor high-frequency discharge and (*frog*), 93, 324
Pancreas, anterior pituitary extract effect on (*rat*), 91, 352
blood sugar effect on output of insulin by (*cat*), 79, 416
cholagogue action of secretin and (*cat*), 64, 338
diabetogenic hormone action on insulin content of (*dog*), 97, 200
diet and fasting effect on insulin content of (*rat*), 97, 107
hypophysectomy and pituitary extract effect on insulin of (*rat*), 100, 104
hypophysectomy effect on insulin content of (*rat*), 98, 419
insulin administration effect on insulin content of (*rat*), 100, 142
perfusion by heart-lung preparation of (*dog*), 61, 245
secretin action on respiration of slices of (*cat*), 87, 281
secretin mode of action on (*cat*), 94, 557
skeletal muscle glycogen resynthesis affected by (*cat*), 74, 340
stimulant in circulating blood to (*dog*), 64, XXVIII
vagus section and activity of (*cat*), 64, 229
Pancreatectomy, adrenaline action on serum potassium affected by (*cat*), 82, 396
Pancreatectomy, blood sugar affected by pituitrin after (*dog*), 67, 264
choline action on liver fat following (*dog*), 79, 94
ketosis affected by increased metabolism after (*dog*), 97, 394
lecithine action on sugar excretion after (*dog*), 75, 49
liver glycogen after decapitation affected by (*cat*), 73, 88
skeletal muscle carbohydrate metabolism following (*cat*), 62, 179
Pancreatic diabetes, ketosis after hypophysectomy affected by (*dog*), 77, 92
Pancreatic juice, bile stimulus to secretion of (*cat*), 61, 419
depressor substance in (*dog*), 86, 103
fat absorption and (*cat*), 64, V
peptidase and tryptic activity of (*man*), 94, 556
secretagogue activity of (*dog*), 86, 102
secretin absorption and (*cat*), 61, 489
Pancreatic secretion, factors controlling (*cat*), 99, 415
secretin action on enzymes in (*cat*), 100, 80
Pancreatin, pressor substance in (*mammal*), 66, 422
Pancreotropic factor, pancreas histological changes with (*rat*), 91, 352
Panal heating, efficacy of (*man*), 64, I
Panting, central and reflex mechanism of (*dog*), 77, 319
factors affecting (*dog*), 77, 16
Paracentesis, vitreous body changes following (*rabbit*), 68, 161
Paraffin, bile in activation by (*cat*), 64, XXXIII
Paraplegia, flexor reflex affected by (*dog*, *monkey*), 75, 17
Parasympathetic drugs, gut affected by (*Amphibia*), 75, 99
Parasympathetic ganglion, impulse transmission through (*mammal*), 89, 99
Parasympathetic nerves, acetylcholine content of tissue with integrity of (*dog*), 79, 280
autocoid function of, 82, 129
stimulation, salivary secretion pressor and depressor substances resulting from (*cat*), 85, 22
Parasympathetic system, alkali effect on (*cat*), 62, XXVIII
histamine control by (*cat*), 71, 33
Parathormone, calcium and phosphorus metabolism affected by (*rat*), 76, 315
calcium excretion as assay for (*rat*), 75, 13*P*

**Parathermosne**, creatine phosphate in muscle influenced by (*cat*), 75, 371
immunity, nature of (*rat*), 76, 324
plasma: cerebrospinal calcium ratio affected by (*dog*), 91, 94
saliva calcium affected by (*dog*), 89, 98
**Parathyroid extract**, antigrowth factor in (*rat*), 70, xli
estimation and standard preparation of, 86, 3*P*
gastric secretion affected by (*dog*), 98, 27*P*
guanidine effect and (*dog*), 87, 73*P*
plant growth inhibited by, 71, xvii
temperature affected by (*rabbit*), 77, 26*P*
**Parathyroid gland**, anti-growth principle in (*mammal*), 76, 303
creatine and phosphate metabolism influenced by (*cat*), 75, 366
thyroid gland affected by feeding of (*rat*), 61, 557
vaso-motor reflexes and (*cat*), 66, 449
**Parathyroid hormone**, bone osteoclasts affected by (*rat*), 79, 114
**Parathyroidectomy**, chronaxie following (*cat*), 62, 122
creatine phosphate metabolism in muscles following (*cat*), 79, 218
gastric secretion following (*dog*), 78, 26*P*
glucose absorption affected by (*rat*), 75, 435
irradiated ergosterol effect after (*dog*), 69, xxxv
**Parietal cells**, carbonic anhydrase in (*mammal*), 97, 37
**Parturition**, pituitary extract action on (*guinea-pig*), 74, 134
uterine sensitivity to oxytocin during (*rabbit*), 78, 309
**Pavlov pouch**, acidity in (*dog*), 65, 77
**Pecten muscle**, thixotropic effect in, 73, 4*P*
**Pelvic nerve**, afferent discharges from bladder in (*dog*), 89, 2
bladder state and impulses in (*cat*), 86, 401
**Pentose**, intestinal absorption of (*rat*), 99, 239
**Pepsin**, chloride action on (*man*), 67, 413
duodenal extract on secretion of (*cat*), 69, 51
gastric acidity and secretion of (*man*), 66, 363
pressor substance in (*mammal*), 66, 422
**Peptic activity**, chloride action on (*man*), 67, 413
**Peptone**, lung histamine liberation by (*mammal*), 90, 288
red blood cell permeability and (*rabbit*), 61, 116
**Peptone feeding**, blood amino-acids distribution with (*cat*), 89, 275
**Perabrodil**, alimentary haemorrhage effect on (*man*), 99, 344
**Percaine**, sympathomimetic action of (*mammal*), 97, 290
**Perfusion fluid**, haemolysed red cells for, 86, 42*P*
**Perfusion oedema**, capillary permeability and (*frog*), 98, 109
**Perfusion pump**, Dale and Schuster double, 64, 356
and flow recorder combined, 69, v
new type of, 77, 14*P*
small internal volume type, 99, 102
**Pericardial oedema**, chlorazol fast-pink causing (*cat*), 84, 63*P*
**Periodontal membrane**, afferent impulses due to pressure on (*cat*), 97, 210
**Peristalsis**, oesophageal pain and (*man*), 63, 223
**Peritoneal cavity**, gas tensions in (*mammal*), 67, vii
**Pernicious anaemia**, blood pH in, 64, xxi
gastric juice buffering power in (*man*), 73, 431
liver extracts from different species effective in (*mammal*), 100, 94
**Pernocton**, blood sugar and liver glycogen affected by (*cat*), 76, 405
**Perspex**, blood clotting delay on surface of, 100, 5*P*
**Petroleum emulsion**, bile inactivation by (*cat*), 64, xxxiii
**Petrosal nerve**, ovulation after destruction of (*rabbit*), 100, 411
**Pettenkofer reaction**, quantitative use of, 64, vii
**pH**, acetylcholine on frog's heart and, 64, 139
acetylcholine production in heart affected by (*frog*), 82, 147
anaerobic heart affected by (*frog*), 82, 269
auricle oxygen consumption affected by (*frog*), 68, 436
carbon dioxide hyperpnoea effect on arterial (*man*), 74, 471
colorimetric determination, errors in, 61, xxvi
comparison of methods of determination of, 61, 448
haemocyanin, carbon dioxide pressure and (*Maia*), 62, 67
haemoglobin carbamino compound affected by, 83, 88
heart activity affected by changes in (*frog*), 66, 197
heart affected by adrenaline and acetylcholine with (*frog, rabbit*), 71, 434

pH, heart anaerobic activity affected by (*frog*), 75, 327
heart electrical response affected by (*frog*), 69, 228
heart rate affected by (*frog*), 68, 373
heart volume affected by (*dog*), 61, 297
histamine inactivation affected by, 70, 353
indicator yellow absorption spectrum affected by (*frog*), 89, 347
intestinal muscle and effect of (*rabbit*), 63, 101
intestine contractions affected by changes in lumen of (*mammal*), 68, 71
in asphyxia affected by (*mammal*), 85, 253
measurement, muscle contraction and (*frog*), 90, 47*P*
oxygen dissociation curve of dilute blood affected by (*mammal*), 71, 248
oxygen dissociation rate of haemoglobin and haemocyanin affected by, 79, 169
red blood cells and (*man*), 63, 343
phosphate and (*man*), 63, 1
volume affected by, 62, xvi
skeletal muscle and (*cat*), 63, 35
carbon dioxide relation to (*frog*), 68, 64
extract enzymes and changes in (*rabbit*), 65, 126
inexcitability caused by (*frog*), 70, 396
stretch response affected by (*frog*), 84, 4
staircase phenomenon affected by (*rabbit*), 75, 2
stomach contraction and (*cat*), 64, 144
stomach muscle and effect of changes of (*mammal*), 63, 51
surface tension of colloidal solutions affected by, 92, 151
uterus and factors affecting (*mammal*), 67, 66
vasodilator action of nitrite and acetylcholine with (*cat*), 63, 175
ventricle electrogram affected by changes in (*frog*), 84, 446
villi movements affected by (*cat*), 75, 441
Phagocyte, fat absorption effected by (*frog, rabbit*), 93, 3
Phase angle, measurement in skin of (*man*), 93, 349
Phase-change, siren and sine wave, 86, 66*P*
Phenolases, adrenaline inactivation by, 98, 130
Phenol red, excretion of (*rabbit, dog*), 82, 439
renal excretion of (*dog*), 87, 237
renal extraction ratio of (*rabbit*), 72, 222
Phenol red clearance, concentration effect on (*rabbit*), 82, 451
Phenol red clearance, plasma concentration effect on (*dog*), 87, 247
Phenolsulphonephthalein excretion, temperature effect on (*frog*), 79, 109
Phenylallylamine, physiological actions of (*mammal*), 93, 424
Phenylbutanylamine, physiological actions of (*mammal*), 93, 424
Phenylhydrazine, Price-Jones curves in polycythaemia affected by (*man*), 99, 2*P*
spleen volume affected by (*rabbit*), 65, 77
Phenyltrimethylammonium iodide, nerve-muscle response to stimulation affected by (*frog*), 93, 246
Philippson's reflex, mechanism of (*cat*), 88, 202
Phlorrhizin, cyanol clearance affected by (*rabbit*), 80, 257
decerebrate hyperglycaemia affected by (*rabbit*), 80, 323
diabetes anti-ketogenic substance action in (*rat*), 84, 15
diet effect on liver glycogen depletion by (*rat*), 93, 357
glycogen stores after different diets affected by (*rat*), 92, 50
glycosuria, drugs action on (*rat*), 64, 350
ergotoxin action on (*rat*), 65, 456
mechanism of (*dog*), 69, 411
hypophysectomy effect on diabetic action of (*dog*), 77, 81
ketosis after hypophysectomy affected by (*dog*), 77, 92
localization of action of (*frog*), 89, 33*P*
renal excretion of dyestuffs affected by (*frog*), 89, 30*P*
sugars excretion affected by (*rabbit*), 80, 249
Phosphagen, adrenalectomy effect on muscle breakdown of (*cat*), 82, 315
cardiac function and (*frog*), 74, 7*P*
comparative study of, 65, 18
estimation of, 68, 196
heart activity affecting (*frog, tortoise*), 75, 332
heart anaerobiosis and (*frog*), 72, 25*P*
heart in normal and asphyxiated state and changes in (*mammal*), 91, 314
pH changes in muscle with breakdown of (*frog*), 94, 471
plain muscle activity and changes in (*Mytilus*), 82, 79
skeletal muscle activity and (*frog*), 65, 20
contraction and (*frog*), 63, 155
tumours and content of (*mammal*), 75, 140
*See also* Creatine phosphoric acid

**Phosphatase**, synthetic action of, 66, xvi
**Phosphate**, blood pH and distribution of (*man*), 63, i
carbohydrate metabolism in muscle and (*cat*), 62, 174
diffusion into muscle of (*frog*), 66, 23
ether anaesthesia on blood (*rabbit*), 64, xi
excretion, creatine and parathormone injection effect on (*cat*), 75, 368
creatine ingestion effect on (*cat*), 71, 222
cyanide effect on (*P-L-K*), 74, 285
factors controlling (*H-L-K*), 90, 70*P*
parathormone action on (*rat*), 76, 318
water diuresis effect on (*man*), 61, i
exercise effect on blood and urine (*man*), 61, 35
glucose absorption affected by (*rat*), 73, 176
glycogenolysis in muscle and liver and (*cat*), 64, 255
heart beat affected by (*rabbit*), 74, 152
intestine and diffusion of (*rabbit*), 73, 174
intestine contractions affected by changes in lumen of (*mammal*), 68, 73
metabolism, heart in normal and asphyxiated state and (*mammal*), 91, 314
parathyroid influence on (*cat*), 75, 366
mild exercise effect on (*man*), 69, 225
red blood cell and diffusion of, 77, 22*P*
rigor muscle buffering and (*ox*), 92, 340
skeletal muscle and bone equilibrium with (*frog*), 79, 31
skeletal muscle extract and changes in (*rabbit*), 65, 118
small intestine contractions and (*rabbit*), 65, viii
sympathectomized muscle and (*dog*), 69, 366
tooth formation affected by (*rat*), 95, 51*P*
tumours and content of (*mammal*), 75, 140
**Phosphoric esters**, lactate action in iodoacetate poisoning on (*frog*), 78, 299
red blood cell comparative study of (*mammals*), 65, 374
**Phosphorylation**, amino acids effect on rate of, 100, 17*P*
**Phosphotungstic acid**, hypoglycaemic action of (*rabbit*), 84, 362
**Phosphorus**, radio-active assimilation after deficiency of (*rat*), 100, 372
retention, tetany relation to (*man*), 75, 33*P*
tooth formation affected by dietary (*rat*), 99, 18
**Phosphorus index**, comparative study of (*mammals*), 65, 374
**Phosphorus poisoning**, liver fat and choline action in (*rat*), 83, 275
**Photocell colorimeter**, 93, 281
**Photo-electric colorimeter**, 79, 152
**Photo-electric haemoglobinometer**, 69, xxii
**Photometer**, dark adaptation measurement by simple, 91, 20*P*
**Photo-sensitising pigment**, buckwheat flower and presence of (*rodent*), 100, 212
**Phrenic nerve**, action currents in (*rabbit*), 66, 81
afferent pathways from (*cat*), 94, 2*P*
broncho dilatation following stimulation of (*cat*), 90, 85*P*
conduction affected by pressure on (*cat*), 61, 353
**Physical fitness**, lactic acid-bicarbonate relationship as measure of (*man*), 69, 293
soci-economic level of boys affecting, 98, 2*P*
**Physostigmine**, acetylcholine production in heart incubated with (*frog*), 82, 149
histamine liberation affected by (*cat*), 71, 33
intra-ocular pressure affected by (*dog*), 71, 24
**Picrotoxin**, cerebral cortical activity with sense organ stimulation affected by (*mammal*), 100, 178
histamine release from muscles in poisoning by (*dog*), 96, 245
ovulation response to (*rabbit*), 97, 128
**Pig**, carbonic anhydrase inhibitor in serum, 87, 41*P*
histamine action on pulmonary and mesenteric artery and vein, 61, 286
insulin action on blood sugar, 64, xxxi
pressor substance in ovary and intestine, 66, 421
secretin actions and properties, 66, 6
**Pigeon**, brain acetylcholine content, 96, 6*P*
brain oxygen uptake with vitamin-$B_1$, 72, 32*P*
brain respiratory quotient and vitamin-$B_1$, 79, 6*P*
heart block and vitamin-B, 68, i
kidney respiration and vitamin-$B_1$, 81, 11*P*
prolactin standardization, 88, 6*P*
pyruvate in brain metabolism, 81, 22*P*
pyruvate oxidation mechanism in brain, 96, 7*P*
sympathetic innervation of skeletal muscle, 67, i

**Pilocarpine**, adrenaline discharge effected by (*cat*), 81, 302
adrenaline reversal effected by (*mammal*), 62, 56
blood pressure of decapitate cat and, 63, 42
gastric acidity affected by (*monkey*), 82, 1
gastric juice buffering power affected by (*man*), 73, 433
secretion with (*cat*), 73, 122
saliva, acetylcholine present in (*cat*), 81, 89
stomach and action of (*rabbit*), 61, 262
strychnine antagonism on muscle to (*frog*), 81, 141
**Pilomotor nerves**, method of investigating integrity of (*man*), 64, 105
**Pilomotor reaction**, electrical stimulation of skin and (*man*), 64, 87
**Pinealectomy**, effects of (*rat*), 81, 49
**Pitocin**. *See* **Oxytocin**
**Pitressin**. *See* **Vasopressin**
**Pituitary, anterior**. *See* **Anterior Pituitary**
**Pituitary extirpation**. *See* **Hypophysectomy**
**Pituitary extract**, coronary circulation affected by (*H-L*), 68, 325
double heart-lung-kidney preparation response to (*dog*), 68, 344
ketonuria and action of (*rat*), 64, xxii
**Pituitary gland**, adrenaline and insulin actions on carbohydrate metabolism affected by (*rabbit*), 83, 157
adrenaline and insulin actions relation to (*rabbit*), 80, 193
gonadectomy effect on (*rat*), 79, 24
gonadotrophin preparation from (*horse*), 96, 4*P*
insulin action on (*rabbit*), 62, vii
melanophore hormone secretion with stimulation by drugs of (*frog*), 95, 47*P*; 96, 15*P*
nerve fibres in (*rabbit*), 66, 316
ovarian hormone effect on weight of (*rat*), 83, 18
removal of. *See* **Hypophysectomy**
urine secretion control by (*rat, cat*), 91, 202
vagus section affecting (*rabbit*), 62, i
'water-balance' principle location in (*vertebrate*), 100, 135
water diuresis in absence of (*dog*), 68, 305
**Pituitary, pars intermedia**, nerve fibres in (*rabbit*), 66, 319
**Pituitary, posterior**. *See* **Post-pituitary**
**Pituitary tumour**, metabolic rate affected by (*man*), 71, xxvii
**Pituitrin**, adrenal cholesterol affected by (*rabbit*), 70, 442
adrenaline broncho-constrictor action following (*dog*), 89, 26*P*
adrenaline reversal effected by (*mammal*), 62, 54
alcohol diuresis affected by (*man*), 76, 379
anaemia and water balance affected by (*mammal*), 94, 124
anaerobic uterus and action of (*guinea-pig*), 66, 244
blood carriage and excretion of (*rabbit*), 89, 81
blood oxytocic property compared with (*cow*), 81, 67
blood sugar affected by (*man*), 62, ii
after alcohol affected by (*cat*), 77, 247
after pancreatectomy affected by (*dog*), 67, 264
capillary permeability and (*frog*), 63, 249
chloride excretion affected by (*man*), 66, x
circulation affected by (*mammal*), 76, 149
coronary blood flow affected by (*dog*), 64, 191
heart and action of (*dog*), 64, 379
histamine antagonism on blood vessels to (*cat*), 61, 195
hyperglycaemic action of (*cat*), 64, 324
inactivation by tissues of (*mammal*), 85, 502
insulin antagonism to (*rabbit*), 62, viii
intra-ocular pressure affected by (*dog*), 71, 11
iodoacetate hyperglycaemia affected by (*rabbit*), 80, 362
isolated kidney affected by (*P-L-K*), 71, 212
pH effect on stability of different activities of, 96, 337
phlorrhizin glycosuria and (*rat*), 64, 353
portal circulation affected by (*cat*), 66, 274
pregnancy affected by (*mouse*), 69, 466
pregnancy at different stages affected by (*rabbit*), 61, 382
prolan sensitizing action on uterus to (*guinea-pig*), 74, 139
renal hypertension effect on blood pressure response to (*rabbit*), 99, 308
water absorption affected by (*rat*), 76, 283
and distribution affected by (*man*), 78, 147
water balance affected by (*fish, reptile*), 95, 501
water diuresis after intravenous administration affected by (*mammal*), 78, 455
**Placenta**, acetylcholine in (*man*), 79, 274
area measurement of (*mammal*), 72, 20*P*

**Placenta**, blood distribution in foetus and (*sheep*), 95, 173
blood vessel reactions to various drugs (*man*), 93, 129
body weight affected by (*mouse*), 92, 136
circulation in (*sheep*), 100, 20*P*
foetal age relation to weight of (*sheep*), 95, 180
foetal weight relation during pregnancy to (*goat*), 82, 162
relation with duration of pregnancy to weight of (*rabbit*), 83, 216
with age relation to weight of (*goat*), 83, 196
gas diffusion through (*goat*), 62, 373
glucose diffusion through (*sheep, goat*), 92, 460
glycogen, autolysis of (*rabbit*), 81, 183
factors affecting (*rabbit*), 66, xi
maternal control of (*rabbit*), 67, 360
oestrin occurring in (*mammal*), 62, 385
oestrus inhibition in pregnancy relation to (*mouse*), 84, 196
pregnant urine extract effect on (*rabbit*), 71, 40
uterine blood content relation to weight of (*rabbit*), 76, 457
**Plain muscle**, action potential of (*Mytilus*), 90, 233
action potentials and mechanical response of (*Mytilus*), 91, 172
on nerve stimulation to (*cat*), 86, 57*P*
with contraction of (*rabbit*), 98, 480
with excitation and factors affecting (*Mytilus*), 90, 415
adaptation to electrical stimuli affected by ions on (*Mytilus*), 92, 241
adrenaline effect on motor nerve stimulation of (*cat*), 90, 90
adrenaline reversal effect on (*mammal*), 62, 54
alkali sensitization of (*cat*), 62, 81
all-or-none units in (*cat*), 90, 49
alpha and gamma curves in (*Holothuria*), 78, 381
A.C. stimulation and ions action on (*Mytilus*), 94, 322
with ions and drugs effect on (*dog*), 98, 155
amines related to adrenaline action on (*mammal*), 95, 497
base content affected by ionic changes on (*Mytilus*), 91, 403
affected by stretching and stimulation of (*Mytilus*), 96, 1
buffering power of (*cat*), 63, 37
carbohydrate metabolism of (*Mytilus*), 87, 56
**Plain muscle**, choline esterase in (*invertebrate*), 89, 368
cobra venom lysocithin and stimulation of (*guinea-pig*), 94, 237
comparative study of responses of (*Mytilus, frog*), 96, 371
co-ordinating mechanism in (*cat*), 90, 81
cyanide effect on (*Mytilus*), 89, 54*P*
cyclohexylalkylamines action on (*mammal*), 97, 462
denervated, responses of (*cat*), 89, 45*P*
double motor innervation of (*crayfish*), 88, 78
drugs action on electrical response of (*cat*), 87, 87*P*
on response to A.C. and potassium of (*Mytilus*), 92, 73
'economy' of maintained tension in (*snail*), 69, 451
electrical and mechanical response to stimulation of (*cat*), 90, 31
electrograms of (*rat*), 64, xiv
electrolyte action on (*rabbit*), 63, 97
energetics of, 65, i
excitability, adaptation to stimuli and (*Mytilus*), 92, 241
excitation and inhibition mechanism in (*crayfish*), 93, 173
extension and shortening isotonically of (*Mytilus*), 92, 232
frequency of stimulation, direct and alternating current, on response of (*Mytilus*), 82, 1*P*
haematoporphyrin sensitization and light action on (*mammal*), 64, 30
heat production in (*snail*), 69, 442
histamine release in anaphylactic shock and contraction of (*guinea-pig*), 95, 399
on contraction of (*mammal*), 96, 139
inhibition and excitation mechanism in (*crayfish*), 93, 173
inorganic constitution of (*Mytilus*), 89, 13*P*
ions, drugs and electrical stimulation effect on (*frog*), 96, 367
ions effect on response to electrical stimulation of (*Mytilus*), 92, 62
length effect on responses of (*dog*), 61, 368
methoxy-phenylethylamines action on (*mammal*), 76, 237
methoxyphenyl-methoxyethylamines action on (*mammal*), 81, 430
morphothebaine-dimethylether action on (*mammal*), 100, 72
motor unit in (*cat*), 90, 55
oxygen consumption of (*Mytilus*), 87, 56
affected by ions and temperature (*frog, Mytilus*), 98, 20

**Plain muscle**, oxygen lack effect on (*mammal*), 66, 235
pH changes and chemical processes in contraction of (*frog, tortoise*), 94, 461
on contraction of (*mammal*), 63, 51; (*cat*), 64, 144
phenylethylamine derivatives action on (*mammal*), 98, 437
phosphagen changes with activity of (*Mytilus*), 82, 81
potassium and A.C. stimulation of (*Mytilus*), 92, 64
prolonged twitch of (*Holothuria*), 62, xxi
prostate extract effect on (*mammal*), 88, 223
refractory period of (*cat*), 90, 48
rhythmic responses in (*cat*), 90, 68
salt content and factors affecting (*Mytilus*), 91, 398
secretin action on movements of (*mammal*), 66, 11
seminal plasma stimulating action on (*man*), 84, 211
S-methyl iso-thiourea sulphate effect on (*rabbit*), 100, 480
spasm, pH and production of (*cat*), 64, 147
stilboestrol action on (*frog, mammal*), 95, 420
stimulation effect on viscosity of (*Mytilus*), 88, 501
stretching and stimulation effect on weight and total base of (*Mytilus*), 96, 1
temperature effect on response and properties of (*frog, Mytilus*), 98, 12
on contraction of (*dog*), 63, 28
on tension developed in (*dog*), 61, 372
tension-length curve of (*cat*), 61, 276
tension with frequency of stimulation on (*dog*), 61, 371
tonic contractions with electrical stimulation of (*Mytilus*), 94, 1
tonus (*dog*), 69, 393
action potentials in (*Mytilus*), 91, 181
ions effect on (*Mytilus*), 92, 83
oxygen lack effect on (*mammal*), 66, 239
pain and (*man*), 63, 217
two types of (*frog*), 96, 377
twitch, A.C. stimulus effecting (*Mytilus*), 88, 495
vagus-sympathetic interaction on (*cat*), 73, 141
viscosity affected by ions and temperature (*frog, Mytilus*), 98, 16
viscosity changes with A.C. and D.C. stimulation of (*Mytilus*), 88, 492
**Plain muscle**, viscous-elastic properties of (*Mytilus*), 92, 232
with electrical stimulation of (*Mytilus*), 84, 47*P*
**Plain muscle-nerve preparation** (*cat*), 65, xxxv
inhibition in (*rabbit*), 70, 145
luminal reversal of sympathetic action on (*cat*), 74, 187
reactions of (*mammal*), 68, 124
**Plant growth**, problems of, 90, 72*P*
**Plantar digital nerves**, sensory impulses in (*cat*), 61, 465
**Plasma**, adrenaline inactivation in (*cat*), 91, 238
'ageing' to trypsin coagulation of (*fowl*), 98, 20*P*
auto-oxidation in (*rabbit*), 65, 1
bicarbonate, gastric acidity affected by (*man*), 73, 311
calcium, cerebrospinal fluid calcium relation to (*dog*), 91, 90
chloride, renal excretion in relation to (*man*), 67, 204
colloid, creatinine clearance relation to (*man*), 71, 337
intra-ocular pressure affected by (*P-AL-Eye*), 71, 269
posture effect on (*man*), 71, 335
water diuresis and concentration of (*dog*), 70, 60
concentration, stasis effect on (*cow*), 82, 491
creatinine, excretion relation to (*rabbit*), 80, 246
crystalloids, intra-ocular pressure affected by (*P-AL-Eye*), 71, 270
dilution, water intake effect on solids and chloride in (*cat*), 90, 468
electrolytes, exercise in different subjects affecting, 69, 276
water diuresis and concentration of (*dog*), 70, 60
ether anaesthesia effect on gases of (*rabbit*), 64, xxv
pH of (*man*), 64, xxi
oxygen consumption affected by (*rabbit*), 91, 48
phosphate, hypophysectomy effect on (*rat*), 92, 127
protein, osmotic pressure of (*man*), 61, 319
posture effect on (*man*), 72, 113
water diuresis and dilution of (*rabbit*), 75, 91
red cell electrophoretic speed influenced by (*mammal*), 95, 98
renal extraction ratios, urea and creatinine (*rabbit*), 79, 391

**Plasma**, sodium distribution between aqueous humour and (*cat*), 96, 194
ultra-filtration *in vivo* of (*mammal*), 71, 111
volume, diathermy effect on (*rabbit*), 73, 361
growth after birth and increase in (*sheep*), 94, 541
haemorrhage effect on (*cat*), 84, 397
posture effect on (*man*), 72, 111
pregnancy effect on (*sheep*), 95, 160
**Plasmaphaeresis**, spleen volume affected by (*rabbit*), 66, 78
**'Plasmoid' aqueous**, nature and composition of (*rabbit*), 62, 323
**Plasmoid intra-ocular fluid**, aqueous humour comparison with (*mammal*), 92, 359
**Platelets**, foreign particles in blood affecting number of (*rabbit*), 62, 138
histamine content of (*mammal*), 90, 486
oedema development in perfusion affected by (*frog*), 98, 122
white thrombus formation and (*mammal*), 92, 26
**Plethysmograph**, blood pressure continuous recording by (*man*), 95, 240
**Pleura**, gaseous exchange through (*cat*), 82, 414
nerve-endings in visceral (*cat*), 80, 101
**Pleural cannula**, description of, 75, 1*P*
**Plurisegmental innervation**, heat and tension in muscle with (*frog*), 70, 205
skeletal muscle and (*frog*), 66, 431
**Pneumin**, adrenal cortex and production of (*cat*), 67, III
**Pneumonia**, spleen changes in (*cat*), 64, 7
**Pneumotaxic centre**, apneustic centre connexion with (*cat*), 96, 24*P*
**Polarizable electrodes**, nerve stimulation by (*frog*), 66, 227
**Polarization**, pseudo-chronaxie and (*frog*), 76, 261
**Polycythaemia rubra vera**, Price-Jones curves in (*man*), 99, 2*P*
**Polyuria**, hypophysectomy causing (*cat*), 81, 172
renal nerves action after hypophysectomy and decerebration on (*dog*), 98, 190
**Pons**, hyperglycaemia with damage to (*rat*), 78, 199
respiration affected by section of (*cat*), 93, 14
**Porphyrin**, haemoglobin regeneration affected by lack of (*mammal*), 95, 508
**Portal blood sugar**, glucose absorption effect on (*cat*), 73, 166
**Portal circulation**, acetylcholine action on (*cat*), 77, 399
adrenaline action on (*cat*), 66, 274
adrenaline and pituitary action on (*cat*), 75, 247
factors affecting (*P.-AL.-Li*), 74, 356
liver glycogen recovery affected by (*cat*), 76, 423
pituitrin action on (*cat*), 66, 274; (*mammal*), 76, 161
secretin transfer by (*cat*), 61, 489
**Portal pressure**, acetate action on (*mammal*), 66, 377
acetylcholine action on (*cat*), 77, 400
adrenaline action on (*cat*), 69, 178; (*P.-AL.-Li*), 74, 356
adrenaline and pituitary action on (*cat*), 75, 247
histamine action in different species on (*mammal*), 70, 12
**Portal vein**, histamine action on (*cat*), 61, 283
**Post-encephalitic rigidity**, nitrogenous metabolism in (*man*), 62, IV
**Post-ganglionic nerve**, conduction in (*cat*), 85, 194
**Post-mortem glycogenolysis** in muscle and liver (*cat*), 64, 255
**Post-pituitary antidiuretic hormone**, augmentation by various substances of (*rat*), 96, 293
in vertebrate series, 99, 246
**Post-pituitary extracts**, anti-diuretic action of (*H.-L.-K*), 67, XXIV
anti-diuretic and pressor activity parallelism in (*dog*), 100, 233
and 'water-balance' principles in (*vertebrate*), 100, 125
hormone destruction by tissues (*mammal*), 85, 502
potency of principles in (*man, dog*), 68, 238
threshold dose of (*dog*), 85, 39
circulation affected by (*mammal*), 76, 149
diuretic action affected by salt saturation (*dog*), 87, 129
excretion of (*cat*), 87, 152
fate in body of injected (*cat*), 87, 144
insulin hypoglycaemia antagonized by (*rabbit*), 100, 112
isolated blood vessels affected by (*mammal*), 65, XIII
*p*H effect on stability of different hormones in, 96, 337
pressor and anti-diuretic principles separated in, 98, 407
renal blood flow affected by (*dog*), 89, 22

**Post-pituitary extracts**, renal damage resulting from (*rabbit*), 93, 13*P*
uterus response under different conditions to (*cat*), 92, 1
vascular reactions to (*rabbit*), 68, 166
water diuresis affected by (*dog*), 81, 243
in denervated kidney affected by (*dog*), 84, 54*P*
water load relation to anti-diuretic action of (*dog*), 87, 291
**Post-pituitary gland**, acetylcholine action on anti-diuretic principle of (*dog*), 95, 226
active principles of (*various*), 65, 434
dehydration stimulus to (*rat*), 90, 113
species difference in hormone distribution in (*vertebrate*), 100, 126
vagus reflex secretion from (*dog*), 90, 87*P*
**Posterior longitudinal bundle**, decerebrate rigidity and (*cat*), 64, 310
**Posterior nerve root section**, electromyogram of muscle and (*cat*), 61, 87
**Postural reversal**, peripheral mechanism of (*cat*), 76, 52
**Postural tone**, cerebellar electrical activity relation to (*cat*), 94, 77
onium salts action on (*mammal*), 83, 7*P*
**Posture**, arm deviations and their reversal (*man*), 65, x
artificial production by stimulation of nerves (*mammal*), 70, xxvii
by muscle stimulation (*cat*), 71, 292
blood composition affected by (*man*), 70, xxxii
blood pressure affected by (*cat*), 98, 86
changes with over-ventilation affected by (*cat*), 70, 305
blood volume affected by (*man*), 72, 110
cerebro-spinal fluid pressure affected by (*man*), 91, 186
circulation rate and (*man*), 64, 44
depressor mechanisms in circulatory response to, 86, 8*P*
leg volume changes with (*man*), 72, 121
long spinal paths in control of (*cat*), 82, 20*P*
metabolic rate affected by (*cat*), 74, 163
plasma colloid changes with (*man*), 71, 335
renal filtration changes with (*man*), 71, 331
supplemental air volume with (*man*), 64, 56
venous pressure affected by (*man*), 92, 385
**Potassium**, acetylcholine on frog's heart and, 64, 137
acetylcholine liberation from cholinergic nerve endings with (*mammal*), 86, 306
**Potassium**, acetylcholine production in heart effected by (*frog*), 82, 147
adrenaline action on distribution in body of (*cat*), 86, 219
on hepatic (*cat*), 86, 9*P*
on perfused liver liberating (*cat*), 87, 181
on serum (*cat*), 82, 393
adrenergic vascular response affected by (*rabbit*), 99, 120
alternating current antagonism on plain muscle contraction to (*frog*), 96, 368
aqueous humour/blood diffusion relation of (*P-AL-H*), 98, 141
auricle oxygen consumption affected by (*frog*), 68, 436
auricular conduction affected by (*tortoise*), 61, 178
clearance, newborn infant and, 99, 275
cutaneous nerve-endings response affected by (*frog*), 88, 394
electrocardiogram affected by (*man*), 89, 159
electrode, use of (*frog*), 64, II
excess, heart electrical response with (*frog*), 69, 326
giant nerve fibre action potential and content of (*squid*), 98, 306
heart affected by acetylcholine with changes in (*frog, rabbit*), 71, 438
heart affected by concentration of (*frog*), 66, 211
intestinal contractions affected by changes in lumen of (*mammal*), 68, 71
intestinal muscle and action of (*rabbit*), 63, 100
intestinal response to adrenaline affected by (*fowl*), 96, 105
mechanism of accumulation in cells of, 100, 56
nerve discharges caused by (*cat*), 96, 10*P*
nerve excitability with electrotonus affected by (*frog*), 89, 35
nerve resistance relation to interpolar length affected by (*frog*), 96, 70
neuro-muscular transmission affected by (*crab*), 87, 213
non-medullated nerve affected by (*Sepia*), 83, 435
pituitrin action on uterus with excess of (*guinea-pig*), 74, 141
plain muscle and factors affecting content of (*Mytilus*), 91, 400
extension affected by (*Mytilus*), 92, 233
response affected by temperature (*frog, Mytilus*), 98, 13
response to A.C. and (*Mytilus*), 92, 64; 94, 5; 94, 324

**Potassium**, red blood cell permeability to (*rabbit*), 70, 175; (*cat*), 95, 38*P*
reversible inexcitability of muscle and (*frog*), 67, 159
sensory end organ single preparation affected by (*frog*), 71, 87
sensory nerve ending reversible inexcitability caused by (*frog*), 79, 105
skeletal muscle and accumulation of (*frog*), 100, 1
and action of (*frog*), 64, 11
and diffusion of (*frog*), 70, 398
and variations in content of (*man*), 96, 12*P*
heat production affected by (*frog*), 93, 305
inexcitability and (*frog*), 70, 389
response to (*cat*), 91, 4*P*
resting metabolism and excitability affected by (*frog*), 86, 162
**staircase phenomenon** affected by (*rabbit*), 75, 4
**strychnine** curarization action affected by (*frog*), 88, 334
**sympathetic ganglion** affected by (*cat*), 83, 124; 86, 290
activity affected by (*cat*), 84, 12*P*
differential paralysis to acetylcholine and (*cat*), 86, 10*P*
stimulation effect on (*dog*), 86, 258
**tetanus** after effects and action on muscle of (*cat*), 93, 47
**uterine** response to adrenaline affected by (*guinea-pig*), 98, 498
**vaso-dilator** action of (*mammal*), 99, 224
**vibrissae** sense organ response affected by (*cat*), 98, 173
**Potential difference**, valve amplifier measurement of, 65, xxxvi
**P-Q interval**, variability in electrocardiogram of (*guinea-pig*), 92, 269
**P-R interval**, adenylic acid and adenosine action on (*dog*), 68, 223
**Precipitin**, thyreoglobulin estimation by (*dog*), 62, 199
**Precipitin test**, anti-prolactin serum and (*mammal*), 93, 47*P*
**Pre-ganglionic nerve**, choline esterase of sympathetic ganglion affected by (*cat*), 89, 432
conduction in (*cat*), 85, 190
facilitation between volleys in two different (*cat*), 85, 211
ganglion after-potentials with degeneration of (*cat*), 96, 121
inhibitory nature of (*cat*), 88, 31
**Pre-ganglionic stimulation**, acetylcholine liberation from perfused ganglion with (*cat*), 94, 159
**Pregnancy**, adrenal cortex affected by (*rat*), 77, 159
adrenal gland cholesterol in (*rabbit*), 68, 260
adrenalectomy effect on (*rat*), 98, 255
blood and plasma volume changes during (*sheep*), 95, 159
blood carbon dioxide equilibrium in (*goat*), 80, 491
blood lipoid changes in (*rabbit*), 86, 250
blood oxytocic property in (*cow*), 81, 65
blood pressure relation between foetus and mother in (*cat*), 74, 391
carbohydrate metabolism affected by nitrous oxide in (*cat*), 80, 10
corpus luteum essential to (*mouse*), 65, 341
disease, ketonaemia relation to (*sheep*), 97, 120
duration of (*baboon*), 69, xxxi
fat content of tissues affected by (*sheep*), 99, 443
foetal and maternal blood oxygen dissociation curves in (*man*), 87, 97
oxygen dissociation curves with duration of (*goat*), 83, 199
foetal-placental weight ratio in (*goat*), 82, 162
gonadotropic hormones action following hypophysectomy (*rabbit*), 90, 150
hypophysectomy and various hormones action on (*rabbit*), 90, 145
hypophysectomy effect on (*cat*), 75, 23
ketonaemia occurrence in (*sheep*), 97, 120
production by diet in (*sheep*), 94, 346
ketonuria during (*rat*), 69, xix
liver cell Golgi apparatus in (*mammal*), 62, 76
liver fatty infiltration in (*mammal*), 97, 240
melanophores affected by urine in human (*frog*), 90, 431
oestrin and oxytocin synergism on uterus in (*mouse*), 84, 133
oestrin effect on (*mouse*), 62, 145
oestrin maintenance after hypophysectomy (*rabbit*), 95, 83
oestrin prolongation after hypophysectomy (*rabbit*), 92, 11*P*
oxytocin action on uterus affected by (*mouse*), 82, 107; (*rat*), 90, 385
and oestrin effect on (*mouse*), 69, 469
in blood during (*mammal*), 84, 351
pituitary extract action on uterus during (*guinea-pig*), 74, 134

**Pregnancy**, pituitary ovulation hormone content during (*rabbit*), 83, 131
pituitrin action at different stages of (*rabbit*), 61, 382
placenta inhibition of oestrus during (*mouse*), 84, 196
placental circulation at different stages in (*sheep*), 100, 20*P*
progesterone action following hypophysectomy (*rabbit*), 90, 146
and oestrogens action after hypophysectomy (*rabbit*), 97, 517
maintenance following hypophysectomy (*rabbit*), 86, 415
spleen size affected by (*dog*), 76, 443
spleen volume in (*dog*), 66, 32
temperature effect on (*mice*), 64, 391
thyroidectomy effect on (*rat*), 93, 405
urine. *See* **Pregnancy urine**
uterine behaviour *in vivo* during (*guinea-pig*), 100, 263
uterine blood content during (*rabbit*), 76, 447
uterine blood flow affected by (*rabbit*), 77, 194
uterine cornua and cervix reciprocal activity in (*goat*), 81, 278
uterine oxygen usage during (*rabbit*), 83, 215
uterine reaction to oxytocin and oestrin affected by (*guinea-pig*), 79, 310; (*rabbit*), 84, 155
to oxytocin during (*man*), 79, 83; (*rabbit*), 81, 374
uterine sensitivity to oxytocin during (*rabbit*), 78, 309
uterine sensitization to oxytocin with oestrin in (*mouse*), 84, 126
vagina action potentials in (*rabbit*), 97, 140
vena cava stream lines in late stages of (*cat*), 88, 263
vitamin A deficiency effect on (*rat*), 92, 32
water balance during (*mouse*), 92, 144
**Pregnancy urine**, age of animals in standardization of (*mouse*), 75, 44
blood sugar raising principle in (*man*), 93, 18*P*
ovarian and luteal functions after hypophysectomy maintained by (*rabbit*), 87, 75*P*
ovulation in hypophysectomized animals produced by (*rabbit*), 72, 15*P*
ovulation response to repeated injections of (*rabbit*), 81, 338
placenta and ovulation affected by (*rabbit*), 71, 40
standardization curve for ovulation due to (*rabbit*), 81, 348
**Pregnancy urine**, vaginal reaction to prolonged treatment with (*rat*), 80, 108
vitamin-B deficient adult rat as test animal for hormones in, 96, 250
**Pregnant mare serum**, gonadotropic properties of (*mammal*), 92, 18*P*
**Premature beat**, heart rhythm affected by (*cat*), 90, 11*P*
single vagal volley effect on heart following (*cat*), 82, 248
**Pressor principle**, anti-diuretic activity parallelism with (*dog*), 100, 233
**Pressor reflex**, cardio-inhibitory reflex affected by, 71, 420
ergotamine action on (*cat*), 69, 332
ischaemic contracting muscle and (*man*), 89, 372
right auricle concerned in (*cat*), 81, 5*P*
**Pressor response**, parathyroid-adrenaline antagonism and (*cat*), 66, 455
**Pressor substance**, tissues and extract of (*mammal*), 66, 416
**Pressure**, sensory nerve impulses resulting from (*cat*), 61, 469
**Pressure diuresis**, caffeine comparison with (*H-L-K*), 69, 161
osmotic work and efficiency of kidney in (*P-L-K*), 97, 370
**Pressure-flow curves**, blood and Ringer comparison in limb (*dog*), 78, 346
**Pressure nerve endings**, nerve impulse on stimulation of (*frog*), 84, 252
strychnine action on (*frog*), 67, 22
**Pressure receptors**, afferent discharges to cortex from (*mammal*), 100, 167
pacinian corpuscle as (*cat*), 68, 143
tooth and response to stimulation of (*cat*), 97, 209
**Price-Jones curves**, polycythaemia with phenylhydrazine treatment effect on (*man*), 99, 2*P*
**Primate**, oestrone action on prostrate, 84, 15*P*
**Proflavine**, renal extraction ratio of (*rabbit*), 72, 228
**Progesterone**, adrenalectomy survival time affected by (*rat*), 95, 12*P*
assay of (*rabbit*), 83, 145
desoxycorticosterone acetate activity compared with (*mammal*), 96, 21*P*
oestrone antagonism on uterus to (*rabbit*), 88, 100
oestrus inhibition by (*mouse*), 92, 371
by testosterone and by (*mouse*), 90, 15*P*
organs affected by (*rabbit*), 83, 155
ovary affected by (*Xenopus*), 89, 38*P*
pregnancy after hypophysectomy affected by oestrogens and (*rabbit*), 97, 517

**Progesterone**, pregnancy maintenance after hypophysectomy by (*rabbit*), 86, 415; 90, 146
tissue extracts containing (*mammal*), 87, 28*P*
triphenyl ethylene antagonism to (*rabbit*), 92, 401
uterine contractions affected by (*guinea-pig*), 87, 3*P*
uterine reaction to oxytocin *in vivo* and *in vitro* affected by (*guinea-pig*), 88, 321
**Prolactin**, anti-serum and precipitin tests (*mammal*), 93, 47*P*
antiserum production to (*mammal*), 92, 4*P*
anti-thyrotrophic serum produced by (*rabbit*), 95, 415
pregnant hypophysectomized animals affected by (*rabbit*), 90, 158
standardization of (*pigeon*), 88, 6*P*
**Prolan**, corpus luteum controlled by (*rabbit*), 81, 475
excretion after intravenous injection of (*rabbit*), 79, 226
fertility affected by (*fox*), 96, 35*P*
**Proprioceptive impulses**, strychnine action on (*frog*), 67, 19
**Proprioceptive nerve**, action potentials in (*frog*), 67, 176
**Proprioceptive nerve-endings**, contralateral effects from stimulation of (*cat*), 88, 203
single preparation of (*frog*), 71, 64
**Proprioceptive reflex**, triceps extensor preparation and (*cat*), 81, 205
**Prosecretin**, existence of (*goat*), 61, 124
**Prostaglandin**, occurrence and properties of (*mammal*), 88, 215
**Prostate gland**, adrenaline action of extracts of (*mammal*), 81, 102
androgens action on growth of (*guinea-pig*), 94, 32
female development in response to male hormone (*rat*), 90, 371
male hormone assay by change in weight after castration (*rat*), 85, 328
oestrone action on (*primate*), 84, 15*P*
pressor substance in (*mammal*), 66, 425
vaso-dilator substance present in (*mammal*), 88, 213
**Prostigmine**, acetylcholine anti-convulsant action potentiated by (*cat*), 90, 314
crossed extensor reflex affected by (*toad*), 97, 360
curarine antagonism in muscle to (*cat*), 86, 1*P*
ephedrine potentiation in myasthenia gravis of (*man*), 98, 4*P*
**Prostigmine**, knee jerk affected by (*cat*), 89, 179, 390
myasthenia gravis affected by (*man*), 84, 35*P*
nerve-muscle response to stimulation affected by (*frog*), 93, 231
neuro-muscular disorders affected by (*man*), 84, 36*P*
spinal cord activity affected by (*dog*), 100, 349
spinal cord affected by (*man*), 89, 21*P*
stimulation optimum rate shifted by (*cat*), 86, 48*P*
**Protein**, cobra venom action on tissue liberation of (*mammal*), 94, 192
diet, exercise (cycling) performance and efficiency affected by (*man*), 82, 189
glycogen store stability after (*rat*), 92, 48
excretion, molecular weight relation to (*mammal, P-L-K*), 77, 390
normal occurrence of (*rat*), 79, 191
feeding, sulphur-nitrogen excretion ratio after (*dog*), 77, 240
gastric juice buffering power and (*man*), 73, 438
hydration, measurement of, 72, 2*P*
lipotropic action of (*rat*), 86, 337
metabolism. *See* **Protein metabolism**
oil-in-water emulsion protected by, 95, 5*P*
osmotic pressure with dilution of (*man*), 61, 325
retention in body after ingestion of (*man*), 72, 327
storage, sulphur contained in (*man*), 72, 331
surface tension and isoelectric point relation in, 92, 154
**Protein metabolism**, basal metabolism variation with (*man*), 65, 246
blood base level effect on (*man*), 99, 370
embryo and (*chick*), 61, xxxiv
exercise effect on (*man*), 75, 67; 82, 184
fat diet and (*rat*), 65, 200
heart and (*frog*), 72, 456
heart oxygen usage and (*frog*), 75, 318
injury effect on (*rat*), 89, 53*P*
iodoacetate action on cardiac (*frog*), 90, 343
protein intake effect on (*man*), 72, 337
sulphur labile in (*dog*), 77, 240
thyroxine and exercise effect on (*dog*), 74, 381
**Prothrombin**, quantitative assay of, 100, 275
**Protozoa**, oxygen consumption of (*Colpidium*), 68, II

P substance, intestinal extract and properties of (*mammal*), 83, 4
Pseudo-chronaxie, excitation time and (*frog*), 74, 439
retrograde polarization affecting (*frog*), 76, 268
stimulation medium affecting (*frog*), 73, 220
Pseudo-globulin, carbonic anhydrase inhibitor and, 91, 483
renin reaction with, 98, 290
Pseudo-motor contractures, facial nerve degeneration and (*dog*), 73, 54
Pseudo-parturition, body weight and metabolic rate affected by (*mouse*), 92, 139
oestrus relation to (*mouse*), 84, 196
Pseudo-pregnancy, blood lipoid changes in (*rabbit*), 86, 250
central nervous stimulation resulting in (*rabbit*), 85, 12*P*; 86, 327
corpus luteum maintenance by oestrin after hypophysectomy in (*rabbit*), 90, 435
course of (*ferret*), 65, xvii
head stimulation effecting (*rat*), 87, 61*P*; 88, 361
hysterectomy effect on (*ferret*), 78, 82
luteal control in prolongation of (*rabbit*), 79, 118
oestrin effect in (*mouse*), 72, 62
oxytocin reaction of uterus in (*rabbit*), 81, 373
pituitary ovulation hormone content in (*rabbit*), 83, 131
uterine reaction to oestrin and oxytocin in (*rabbit*), 84, 152
Psycho-emotive response, resistance and potential effects in (*man*), 86, 11*P*
Puberty, thymectomy effect in male on onset of (*rat*), 74, 207
thymectomy and season affecting onset in female of (*rat*), 74, 49
Pubic bone separation, oestrogens action in male on (*mouse*), 85, 159
Puerperium, lactose excretion during (*man*), 69, viii; 71, 342
uterine sensitivity to oxytocin during (*rabbit*), 78, 309
Pulmonary alveolar epithelium, structure of (*mammal*), 81, 7*P*
Pulmonary arterial pressure, histamine action in different species on (*mammal*), 70, 2
intrathoracic pressure and (*dog*), 65, 425
measurement without anaesthetic (*dog*), 91, 14*P*
Pulmonary artery, histamine action on (*pig*), 61, 286
reactions of (*mammal*), 67, xliii
vascular reflexes from (*cat*), 87, 46*P*
Pulmonary blood flow, histamine action on (*P-L*), 77, 317
intrathoracic pressure relation to (*P-L*), 69, 243
Pulmonary capacity, breathing exercises in asthma effect on (*man*), 95, 25*P*
Pulmonary circulation, acetylcholine action on (*rabbit*), 74, 271
adenine compounds action on (*rabbit*), 72, 299
adrenaline action on (*mammal*), 67, 77
gas embolism effect on (*cat*), 87, 13
histamine action on (*mammal*), 76, 337
in different species on (*mammal*), 70, 1
intrathoracic pressure and (*dog*), 63, 88
microscopic examination of (*cat*), 80, 65
nicotine action on (*mammal*), 67, 77
oedema development relation to (*cat H-L*), 75, 299
pituitrin action on (*mammal*), 76, 150
rate, intrathoracic pressure and (*dog*), 65, 426
vaso-motor supply to (*mammal*), 65, 299
Pulmonary gas embolism, effects on circulation of (*cat*), 87, 11
Pulmonary oedema, causes of (*cat H-L*), 75, 288
measurement and cause of (*dog*), 61, 98
Pulmonary plexus, cardiac nerve fibres in (*dog*), 84, 263
Pulmonary reflexes, vagus partial block effect on (*mammal*), 83, 298
Pulmonary vagus, afferent impulses in (*mammal*), 83, 10*P*
respiratory resistance effect on respiration in absence of (*mammal*), 85, 350
Pulmonary vascular bed, resistance of (*P-L*), 69, 238
Pulmonary vein, histamine action on (*pig*), 61, 286
Pulmonary vessels, adrenaline and acetylcholine action on (*dog*), 75, 471
drugs acting on (*P-L*), 77, 139
Pulse pressure, coronary blood flow affected by (*H-L*), 73, 405
Pulse rate, anoxaemia effect on (*mammal*), 61, 590
body temperature and shivering effect on (*man*), 71, 374
electrocardiogram recording during exercise (*man*), 93, 36*P*
exercise and ventilation rate with (*man*), 66, 330
high temperature effect on (*man*), 84, 281

**Pulse rate**, hyperpnoea effect on (*man*), 66, 313
ischaemia effect on reflex increase of (*man*), 93, 167
metabolic rate relation to (*man*), 66, 148
oxygen poisoning effect on (*dog*), 72, 35
tropical climate effect on (*man*), 99, 496
*See also* **Heart rate**
**Pulse-respiratory tests**, Flack-Woolham figure and (*boy*), 65, VI
**Pulse wave velocity**, age effect on (*man*), 69, 389
**Pump-animal preparation**, systemic flow in (*dog*), 78, 186
**Pupil**, denervated, adrenaline and tyramine action on (*cat*), 71, 186
denervated, ephedrine action on (*cat*), 68, 255
dilatation, splanchnic afferent nerve stimulation effect on (*cat*), 84, 326
vagus afferent nerve pathways determined by reflex (*cat*), 85, 268
visceral afferent nerve stimulation effect on (*cat*), 83, 8*P*
methoxy-phenylethylamines action on (*mammal*), 76, 242
**Pupillo-dilator nerve fibres**, ascending spinal pathways of (*cat*), 90, 395
**Pupillo-dilator reflex**, segmental distribution of visceral afferent neurones for (*cat*), 93, 104
spinal pathways of (*cat*), 89, 47*P*
**Purkinjé tissue**, refractory period with heart rate and (*mammal*), 76, 201
**P wave**, antidromic volley on sympathetic ganglion and (*cat*), 88, 14
inferior mesenteric ganglion and (*cat*), 91, 309
**Pyloric antrum**, outflow with contractions of (*dog*), 76, 132
sympathetic nerve stimulation effect on (*mammal*), 70, 255
**Pyloric sphincter**, regulation of (*dog*), 76, 127
**Pylorus**, afferent nerve fibres from (*cat*), 85, 4*P*; 89, 413
afferent neurone segmental distribution (*cat*), 93, 112
gastric neutralization in (*cat*), 87, 388
movements, apparatus for study of, 81, 35*P*
vagus stimulation on movements of (*mammal*), 61, 28
**Pyramidal tract**, cerebral cortex activity and discharges in (*mammal*), 95, 27*P*
decerebrate rigidity and (*cat*), 64, 310
nervous impulses in (*mammal*), 97, 15
**Pyriform lobe**, breathing and odours affect on activity of (*hedgehog*), 100, 461
**Pyrophosphate**, adrenalectomy effect on muscle breakdown of (*cat*), 82, 315
estimation in muscle of (*frog*), 68, 200
heart beat affected by (*rabbit*), 74, 152
tumours and content of (*mammal*), 75, 140
**Pyruvate**, acetylcholine synthesis by sympathetic ganglion affected by (*cat*), 96, 286
brain and oxidation mechanism of (*pigeon*), 96, 7*P*
brain formation in vitamin $B_1$ deficiency of (*rat*), 85, 460
brain metabolism with vitamin $B_1$ and (*pigeon*), 81, 22*P*
intestinal stimulation by (*rabbit*), 98, 22*P*
**Pyruvycholine**, eserine protection of, 70, 343

**Quadriceps extensor**, reflex inhibition of (*cat*), 64, 201
fractionation of (*cat*), 67, 101
**Quadripolar electrodes**, nerve stimulation by (*frog*), 66, 222
**Quaternary ammonium anticholine esterases**, tertiary group compared with (*cat*), 96, 308
**Quaternary ammonium salts**, acetylcholine antagonism and synergism with (*frog*), 88, 5*P*
curariform activity of (*mammal*), 83, 7*P*
muscle stimulation rate and effect of (*cat*), 93, 6*P*
nerve action currents affected by (*frog, crab*), 84, 90
nerve affected by (*crab, frog*), 79, 75
**Quinidine**, heart and action of (*dog*), 64, 381
**Quinine**, skeletal muscle affected by (*various*), 95, 45
**Radial artery**, pulse wave velocity and extensibility of (*man*), 69, 386
**Radio-active materials**, thyroid gland affected by ingestion of (*rat*), 95, 516
**Radio-active phosphorus**, phosphorus deficiency effect on assimilation of (*rat*), 100, 372
**Ray**, gastro-intestinal reactions to nerve stimulation, 83, 56
lateral line canal sensory end-organ response, 89, 47*P*
renal tubule secretion, 67, XLII
semicircular canals activity, 99, 89
vagus-stomach preparation, 83, 62
**Reaction velocity apparatus**, vacuum operated, 81, 12*P*
**Reactive hyperaemia**; histamine liberation in (*dog*), 85, 13*P*

**Reactive hyperaemia**, histamine relation to (*mammal*), 100, 147
vaso-dilator properties of blood and (*dog*), 64, 161
**Re-breathing**, venous blood carbon dioxide and (*man*), 70, 244
**Re-breathing method** for blood carbon dioxide determination (*man*), 67, 315
**Reciprocal contraction** of antagonistic muscles, class experiment on, 68, xix
**Reciprocal innervation** of antagonistic muscles, mechanism of (*cat*), 62, 278
**Recovery**, sensory end organ in muscle and (*frog*), 61, 159
sensory end organ single preparation and (*frog*), 71, 80
**Recovery heat**, nerve and (*frog*), 71, 136; 76, 175
nerve and analysis of (*crustacean*), 77, 125
nerve and oxygen lack on (*frog*), 63, 286
skeletal muscle (*frog*), 75, 279
high temperature effect on (*frog*), 82, 278
initial energy relation to (*frog*), 65, 385
*p*H effect on (*frog*), 98, 455
stimulus duration and (*tortoise*), 62, 95
**Recruitment**, crossed extensor reflexes and (*cat*), 67, 99
depressor reflex and (*mammal*), 66, 398
**Rectus abdominis**, acetylcholine concentration and action on (*frog*), 61, 533
acetylcholine standardization on (*frog*), 79, 263
atropine-acetylcholine antagonism on (*frog*), 61, 551
**Red light**, retina sensitivity to spectrum with (*man*), 62, xxi
**Red muscle**, motor unit size in, 70, xviii
**Red nucleus**, decerebrate rigidity and (*cat*), 64, 312
foetus and function of (*sheep*), 91, 347
respiration affected by section of (*cat*), 93, 13
**Reflex action**, depressor reflex comparison with (*mammal*), 66, 397
excitation strength and inhibition on (*cat*), 66, 115
nerve block affecting (*cat*), 67, 33
single shock stimulus in spinal animal to elicit (*cat*), 77, 258
**Reflex cholinergic nerve** impulses (*cat*), 83, 11*P*
**Reflex contraction**, motor nerve impulse frequency in (*cat*), 67, 119
sympathetic stimulation effect on (*cat*), 75, 7*P*
**Reflex electromyogram**, analysis of (*frog*), 64, 176
**Reflex inhibition**, contracting muscle causing (*cat*), 64, 190
eserine action on (*dog*), 100, 357
**Reflex myogram**, description of (*man*), 68, 132
**Reflex relaxation**, skeletal muscle tone and (*cat*), 63, 197
stimulus intensity and (*cat*), 63, 194
**Reflex rigidity**, experimental types of (*cat*), 90, 89*P*
**Reflex 'silent period'**, muscle end organs and (*frog*), 72, 171
**Reflex summation**, spinal flexion reflex and (*cat*), 69, 1
**Refractometer**, blood cell volume measurement by, 70, 19
**Refractory period**, antidromic sensory fibres and (*cat*), 85, 84
antidromic volley on sympathetic ganglion and (*cat*), 88, 8
giant axon local response and (*squid*), 98, 50
motor end plate and (*cat*), 97, 61
motor unit rhythmic discharge and (*cat*), 83, 188
narcotics action on nerve (*frog*), 73, 394
nerve and frequency of stimulation effect on (*frog*), 83, 403
and high frequency stimulation effect on (*frog*), 83, 416
and sensory end-organ comparison of (*frog*), 72, 400
and stimulation effect during (*frog*), 83, 387
repetitive response to constant current and (*frog*), 88, 250
temperature effect on (*frog*), 69, 60
ocular neuro-muscular junction and (*cat*), 99, 383
olfactory receptors and (*fish*), 94, 452
plain muscle and (*cat*), 90, 48
rhythmic response and (*cat*), 90, 71
quinine action in muscle (*various*), 95, 52
retina off-effect and (*frog*), 91, 129
sensory end-organ single preparation and (*frog*), 71, 78
skeletal muscular contraction theories and behaviour of (*frog*), 78, 327
sympathetic ganglion and (*cat*), 85, 195
ventricle rate in relation to (*mammal*), 74, 13*P*
**Renal blood flow**, caffeine effect on (*H-L-K*), 69, 157
cooling effect on (*P-L-K*), 89, 203
denervation effect on (*H-L-K*), 69, 137

**Renal blood flow**, dyes extraction ratio affected by (*rabbit*), 72, 229
histamine action on (*P-L-K*), 77, 317
ligature of one artery effect on (*H-L-2K*), 82, 16*P*
lungs and oxygenator effect on (*P-L-K*), 72, 344
phenol red action on (*rabbit*), 82, 444
post-pituitary extract effect on (*dog*), 89, 16
Ringer dilution effect on (*P-L-K*), 98, 354
ureter pressure increase effect on (*H-L-K*), 71, 387
urine flow and conductivity recording on smoked drum (*P-L-K*), 87, 65*P*
venous pressure increase effect on (*H-L-K*), 72, 52
**Renal blood vessels**, adenine compounds action on (*rabbit*), 72, 300
adrenaline action on (*H-L-K*), 73, 151
**Renal circulation**, factors affecting in non-anaesthetized dog, 85, 30*P*
rate of (*rabbit*), 74, 214
rate, urea extraction ratio and (*rabbit*), 73, 379
**Renal excretion**, diffusion equation applied to (*rabbit*), 61, 595
**Renal extraction ratios**, dyes and (*rabbit*), 72, 201
phenol red and (*rabbit*), 82, 440
urea and (*rabbit*), 73, 376
urea and creatinine at varying times after injection (*rabbit*), 79, 368
**Renal function**, alimentary haemorrhage effect on (*man*), 99, 344
blood transfusion effect on (*dog*), 75, 190
cyanide effect on (*P-L-K*), 74, 279
diabetic coma effect on (*man*), 95, 36
new-born infant and, 99, 285
temperature effect on (*frog*), 79, 109
**Renal hypertension**, blood pressure affected by drugs in (*rabbit*), 99, 304
carotid sinus reflex activity in (*dog*), 89, 3*P*
renal nerve section effect on (*rabbit*), 92, 44*P*
substance causing (*dog*), 98, 283
tyramine and post-pituitary sensitivity in (*rabbit*), 96, 46*P*
**Renal ischaemia**, cross perfusion blood pressure rise in (*dog*), 96, 44*P*
fat excretion following (*dog*), 93, 51*P*
hypertension onset following (*dog*), 95, 45*P*
**Renal nerves**, experimental hypertension affected by section of (*rabbit*), 92, 44*P*
water diuresis affected by (*dog*), 98, 190
**Renal threshold**, chloride and (*man*), 67, 199
**Renal tubule**, sthrophagocytosis and (*toad*), 90, 70*P*
histological evidence of secretion by (*skate*), 67, xliii
**Renin**, hypertensin formation from, 98, 290
urine formation affected by (*rabbit*), 98, 314
**Reproduction**, embryonic extracts action on (*mammal*), 97, 502
vitamin-$B_1$ and riboflavin deficiencies effect on (*rat*), 100, 423
**Reproductive cycle**, adrenal gland cholesterol changes with (*rat*), 90, 296
**Reproductive organs**, oestrin effect in different species on (*monkeys*), 84, 191
**Reptile**, auditory nerve action potentials with sound, 92, 9*P*
decerebrate rigidity in, 64, 307
gestation relation to corpora lutea, 80, 4*P*
pituitrin action on water balance, 95, 501
**Reserve air.** *See* **Supplemental air**
**Resonance theory**, history of, 66, xix
of hearing, 81, 15*P*
**Respiration**, accelerator fibres in vagus effect on (*dog*), 85, 62
acetylcholine by intraventricular injection effect on (*cat*), 80, 410
adrenalectomy and decerebration effect on (*cat*), 67, 344
adrenaline action on (*cat*), 69, 493
air stream direction in lungs during (*fowl*), 97, 133
alveolar air aqueous vapour pressure with changes in (*man*), 77, 35
apneustic centre role in (*cat*), 93, 267
apparatus, closed-circuit type of (*man*), 67, 423
apparatus for recording (*rabbit*), 70, 218
blood oxygen saturation at birth affected by (*sheep*), 94, 577
blood pressure changes with change in (*man*), 66, 307
body temperature and shivering effect on (*man*), 71, 374
bronchi rhythmic movements with (*dog*), 84, 227; 87, 298
carbon dioxide effect on (*man*), 72, 175
excess effect on (*frog*), 95, 309
in high concentration effect on (*cat*), 74, 156
cardiac nerve stimulation accelerator effect on (*mammal*), 96, 233
carotid sinus chronic denervation effect on (*rabbit*), 87, 70*P*
cerebellar control of (*dog*), 96, 26*P*

**Respiration**, cerebro-spinal fluid pressure affected by (*man*), 91, 189
cineradiographic films of normal and artificial (*man*), 95, 63*P*
constant-flow effect on gaseous exchange in (*cat*), 82, 413
curarine action on (*mammal*), 91, 437
functional activity of gland relation to tissue slice of (*mammal*), 87, 275
gastric secretion effect on (*man*), 70, 184
hepatic circulation affected by (*cat*), 89, 160
intra-abdominal pressure affected by (*man*), 79, 481
intrapulmonary pressure and reflex slowing of (*rabbit*), 88, 284
laryngeal theory of vagus section effect on (*dog*), 77, 2
leucocyte variation with changes in (*man*), 65, v
lung distension and collapse effect on (*mammal*), 66, vi.
magnesium action in paralysing, 82, 2*P*
muscles, lung stretch receptors and activity of (*cat*), 79, 353
nerve impulses in vagus with (*mammal*), 61, 67
nervous regulation of (*man*), 67, 191
obstruction effects on (*man*), 87, 45*P*
olfactory bulb activity associated with (*hedgehog*), 100, 466
oxygen lack effect on (*frog*), 95, 316
phenylethylamine derivatives action on (*rabbit*), 98, 427
phrenic nerve action currents with (*rabbit*), 66, 84
pulmonary gas embolism effect on (*cat*), 87, 16
pulmonary theory of vagus section effect on (*dog*), 77, 9
pump, 61, xiv; 68, 190
negative pressure type, 69, xxxvii
rate, carbon dioxide effect on (*cat*), 74, 157
temperature effect on (*dog*), 77, 18
recorder, graphic, for small animals, 80, 28*P*
recording method of (*mammal*), 99, 257
reflex and central control of (*frog*), 95, 305
resistance to inspiration effect on (*man*), 84, 162
sensory nerve and vagus stimulation effect on, 93, 39*P*
supplemental air and posture (*man*), 64, 56
sympathetic nerve discharge relation to (*mammal*), 74, 122
urethane action at birth on, 90, 29*P*
vagotomy action on respiratory resistance effect on (*mammal*), 85, 350
**Respiration**, vagus action on (*mammal*), 61, xix; (*fowl*), 97, 527
in reflex acceleration of (*dog*), 94, 497
vagus afferent impulses during (*cat*), 79, 332
vagus augmentor fibres function in (*mammal*), 83, 292
vagus influence on (*mammal*), 75, 130
vagus section affecting (*dog*), 74, 86; 77, 1
vaso-constriction following deep inspiration in (*man*), 86, 83
venae cavae affected by, X-ray study of (*mammal*), 81, 434
venae cavae volumes affected by (*mammal*), 79, 470; 86, 264
venous pressure affected by (*man*), 92, 389
**Respiratory centres**, brain sections effect on action of (*cat*), 93, 13
carbon dioxide excess effect on (*frog*), 95, 311
carotid sinus reflex action on (*dog*), 79, 49
curare action on (*dog*), 100, 417
diaphragm movement effect on, 75, 43*P*
factors affecting (*mammal*), 61, xix
foetal (*goat*), 61, xxx
hydrocyanic action on (*mammal*), 69, 128
localization of (*mammal*), 90, 43*P*
lung stretch receptors and (*cat*), 79, 346
potential waves from (*goldfish*), 71, 123
sensitivity in foetus (*goat*), 69, 148
sensitivity to carbon dioxide and pH of (*man*), 74, 482
sympathetic nerve discharge relation to (*mammal*), 74, 125
**Respiratory cycle**, carbamino compound role in, 83, 95
influences affecting (*dog*), 80, 261
**Respiratory exchange**, exercise effect on, 61, xi
urethane anaesthesia on (*rabbit*), 64, xix
**Respiratory failure**, carotid sinus denervation resulting in (*dog*), 87, 48*P*
**Respiratory metabolism**, closed-circuit apparatus for small animals, 89, 421
evisceration effect on (*cat*), 71, 391
**Respiratory movement**, foetal age effect on (*sheep*), 91, 341
foetal blood gases relation to (*cat*), 94, 531
genesis in foetus (*sheep*), 86, 29*P*; 88, 56
hydrocyanic acid action on (*mammal*), 69, 124
**Respiratory nervous impulses**, phrenic nerve block and (*cat*), 61, 353
**Respiratory quotient**, adrenaline action on (*rabbit*), 85, 334
alveolar carbon dioxide tension relation to (*man*), 91, 59
decapitate eviscerated preparation and (*cat*), 68, 265

**Respiratory quotient**, direct and indirect measurement of (*man*), 77, 1*P*
eviscerated preparation and (*cat*), 70, 86; 71, 396
evisceration effect on (*cat*), 66, 403; 79, 508
exercise effect on (*man*), 66, 168
exercise and metabolic rate relation to (*man*), 69, 298
expired air nomogram and, 66, 134
serial sampling and (*man*), 65, 407
fat and (*man*), 72, 354
glucose effect on (*fowl*), 78, 2*P*
glucose infusion rate effect on (*dog*), 90, 445
heart and oxygen pressure effect on (*frog*), 77, 433
heart in aglycaemia and (*dog*), 80, 179
hibernation effect on (*mammal*), 67, xxi; (*bat*), 82, 465
insulin action in diabetic heart on, 79, 2*P*
after exercise on (*man*), 93, 152
over-ventilation and changes in (*cat*), 69, 115
postural movements effect on (*cat*), 74, 168
slide rule calculation of, 64, ix
submaxillary gland slice with acetylcholine stimulation effect on (*cat*), 92, 454
sugars and dihydroxyacetone action on (*man*), 63, 315
synthalin action on (*cat*), 65, 96
thyroxine and exercise effect on (*dog*), 74, 386
urethane anaesthesia on (*rabbit*), 64, xix
**Respiratory reflexes**, carotid sinus and (*dog*), 69, xiii; 69, 254
carotid sinus chronic denervation effect on (*rabbit*), 88, 425
ergotamine action on (*cat*), 69, 343
foetus and adult compared (*goat*), 69, 148
nature of (*fowl*), 97, 525
panting effect on (*dog*), 77, 329
**Respiratory resistance**, vagotomy effect on respiration response to (*mammal*), 85, 350
**Respiratory rhythm**, potential changes with (*Dytiscus*), 72, 135
strychnine action on (*rabbit*), 78, 91
**Retention of action current**, in nerve, nature of (*crustacean*), 67, 327
**Reticulocyte**, carbon monoxide acclimatization effect on (*mouse*), 91, 284
fixed framework of (*rabbit*), 97, 5*P*
fragility of, 99, 39
maturation time of (*man*), 98, 12*P*
sedimentation rate of (*mammal*), 95, 115
splenic blood containing (*mammal*), 95, 100
**Reticulo-endothelial system**, cholesterol metabolism and (*rabbit*), 66, 258
**Retina action potentials**. *See* **Retina action potentials**
after-image and diffusion in (*man*), 73, 252
colour sensitivity of (*man*), 62, xxi
electrical response to intermittent stimuli (*bird, mammal*), 85, 421
to monochromatic stimuli in dark adaptation of (*frog*), 88, 436
to monochromatic stimuli in light adaptation of (*frog*), 89, 239
excitation, reaction time with (*eel*), 64, 281
flicker sensitivity in different regions of (*man*), 74, 412
fusion frequency and action potentials of (*cat*), 78, 428
gamma radiation effect on development of (*rat*), 87, 1*P*
latent period of single and intermittent stimuli to (*cat*), 78, 423
light adaptation and flicker adaptation in (*man, frog*), 84, 111
light and dark adaptation effect on staining reaction of (*rat, frog*), 84, 34*P*
light effect on visual purple content of (*frog*), 94, 436
negative after-image latency in (*man*), 66, 281
optic nerve discharge with action current in (*eel*), 63, 401
photoreceptor process and intensity discrimination of (*man*), 86, 16
reaction time, light intensity and (*eel*), 64, 284
species difference in electrical response of (*bird, mammal*), 83, 421
stimulation, optic nerve impulses with (*Conger eel*), 62, xxiii
strychnine and rhythmic discharges from (*eel*), 65, 283
summation after strychnine on (*eel*), 65, 288
venous pressure in (*dog*), 61, 413
visual purple concentration in dark adaptation relation to sensitivity of (*frog, cat*), 96, 31
content in rods of (*frog*), 98, 402
extraction from (*frog, rat*), 71, 444
**Retina action potentials**, anaesthetic and asphyxia effect on (*cat*), 77, 213
analysis of (*cat*), 76, 1*P*
excitation and inhibition of excised eye and (*frog*), 93, 9*P*
inhibition of 'off-effect' in optic nerve and (*frog*), 81, 47*P*
interaction in (*frog*), 85, 34*P*
intermittent stimulation of (*cat*), 78, 419

**Retina action potentials**, latent period and stimulus area (*cat*), 77, 231
light stimulation of (*man*), 79, 185
off-effect analysis in (*frog*), 91, 127
optic nerve discharges comparison with (*frog*), 83, 359
relation to (*cat*), 77, 224
varying stimuli to (*frog*), 81, 1
**Retinal arteries**, pressure in (*cat*), 62, 5
**Retinitis pigmentosa**, occurrence of (*rat*), 93, 24*P*
**Retino-cerebral apparatuses**, interaction between (*man*), 69, 423
**Retractor penis**, A.C. stimulation with ions and drugs effect on (*dog*), 98, 155
force and speed relation in contraction of (*tortoise*), 96, 48
length effect on responses of (*dog*), 61, 368
temperature effect on contraction of, 63, 29
tonus in (*dog*), 69, 393
**Retrograde polarization**, chronaxie affected by (*frog*), 76, 261
**Reversible inexcitability** in nerve (*crustacean*), 67, 340
sensory nerve endings and (*frog*), 79, 103
skeletal muscle and (*frog*), 67, 152
seasonal variation and (*frog*), 86, 164
stretch response affected by (*frog*), 74, 464
**Rhabdonecrosis**, occurrence of (*rat*), 93, 24*P*
**Rheobase**, daily variations in (*cat*), 62, 120
nerve threshold and current strength relation to 75, 16*P*
tetra-ethylammonium iodide action on nerve (*frog*), 91, 106
**Riboflavin**, adrenalectomy survival time affected by (*rat*), 98, 375
deficiency, reproduction affected by (*rat*), 100, 423
**Riboflavinphosphoric acid**, adrenalectomy survival time affected by (*rat*), 98, 380
**Rickets**, calcium shift in bones with healing of, 70, XIII
dental caries relation to (*man*), 96, 8*P*
ergot feeding and (*dog*), 65, XXIX
growth relation to (*rabbit*), 61, XXIII
**Rigor mortis**, acid-base equilibrium in muscle during (*frog*), 68, 301
blood vessels affected by alkali in (*cat*), 65, 30
buffering of muscle in (*ox*), 92, 336
chloride diffusion into muscles in (*frog*), 90, 178
lactic acid production in (*fish*), 61, IV
**Rigor mortis**, phosphate diffusion into muscle in (*frog*), 66, 24; 79, 40
skeletal muscle elasticity affected by (*rabbit*), 96, 176
*p*H and (*cat*), 63, 35
temperature effect on rate of onset of (*rabbit*), 96, 185
**Ringer diuresis**, mechanism of (*P-L-K, dog*), 98, 336
osmotic work and efficiency of kidney in (*P-L-K*), 97, 375
**Ringer pressure-flow curve**, hind limb showing (*dog*), 78, 344
**Ringer's solution**, sensory end-organ recovery in (*frog*), 71, 102
**Ringer tonus**, plain muscle and (*dog*), 69, 401
**Rod**, after-effect and cone interaction with (*man*), 69, 53
visual purple action on (*frog*), 94, 430
content of (*frog*), 98, 402
preparation from (*frog*), 89, 335
**Round window**, function in hearing of (*man, cat*), 99, 76
**Rubidium**, muscle resting metabolism affected by (*frog*), 86, 166
**Ruffini organ**, nerve impulses from (*cat*), 78, 31
**Runners**, pulse rate of (*man*), 76, 44
**Running**, energy expenditure in walking compared with (*man*), 81, 255
spleen changes during (*dog*), 64, 13

**Saccular nerve**, action potentials in (*frog*), 81, 23*P*
**Safety factor**, nerve impulse and (*frog*), 90, 231
**Safranin**, renal extraction ratio of (*rabbit*), 72, 228
***Salientia***, lymph hearts spinal centres synchronization and integration, 95, 345
**Saline**, blood dilution with administration of (*rabbit*), 75, 90
diuresis, blood changes with (*dog*), 70, 47
decerebration and hypophysectomy effect on (*dog*), 68, 309
plasma changes during (*dog*), 70, 64
**Saliva**, acetylcholine present in (*cat*), 81, 81; 84, 33
calcium, factors affecting (*dog*), 80, 96
depressor substance in (*mammal*), 86, 100
salt deficiency effect on composition of (*man*), 92, 212
secretagogue activity of (*mammal*), 86, 98
**Salivary gland**, acetylcholine content on nerve stimulation to (*dog*), 82, 139
acetylcholine with nerve supply to (*dog*), 79, 279

**Salivary gland**, adrenergic-cholinergic relationship in (*cat*), 83, 301
drugs action on respiration of slices of (*mammal*), 87, 277
potassium action on acetylcholine liberation in (*mammal*), 86, 308
sympathetic stimulation with eserine action on (*cat*), 86, 23
**Salivary secretion**, adrenaline and sympathetic stimulation effect on (*cat*), 83, 43*P*
blood composition affected by (*cow*), 86, 37
humoral transmission in sympathetic stimulation of (*cat*), 82, 293
parasympathetic stimulation effect on pressor and depressor substances in (*cat*), 85, 22
sympathetic stimulation and depressor substance in (*cat*), 85, 17
**Salivation**, water diuresis inhibition effect on (*dog*), 81, 252
**Salt**, adrenalectomy survival time influenced by (*rat*), 86, 240; 87, 224
anticoagulant action of, 90, 379
deficiency, body secretions composition affected by (*man*), 92, 208
extracellular fluid volume affected by (*man*), 92, 208
urinary secretion during (*man*), 91, 222
diet, water diuresis in relation to (*rat*), 82, 68
diuretic action of post-pituitary extract affected by saturation with (*dog*), 87, 129
excretion, new-born infant and, 99, 273
peptic activity affected by (*man*), 67, 413
starvation, water diuresis induced in (*man*), 82, 66
visual purple thermal decomposition affected by, 93, 35
**Saponin**, spleen red blood cells resistance to (*cat*), 61, 442
**Sarcoma**, creatine and phosphate compounds in (*mammal*), 75, 139
**Sartorius**, interfibre and circulatory space volume in (*frog*), 99, 401
isometric heat coefficient at both ends of (*frog*), 81, 367
jerk, spinal cat and, 64, 207
nerve distribution in (*cat*), 67, 10
potassium, sodium and chloride equilibria in (*frog*), 100, 4
plurisegmental innervation of (*frog*), 66, 433
**Scalding**, sodium distribution in blood and tissues affected by (*cat*), 96, 27*P*
**Scurvy**, adrenaline content of adrenal gland affected by (*guinea-pig*), 83, 478
*Scyllium*. *See* **Dogfish**
**Season**, temperature effect on heart rate affected by (*frog*), 71, 147
**Seasonal ketonuria** (*rat*), 65, 193
**Secretagogue substance**, saliva and pancreatic juice containing (*mammal*), 86, 95
**Secretin**, actions of (*pig*), 66, 9
activity following proteolytic digestion of crystalline (*ox*), 90, 330
amino-acids in and stability of crystalline, 94, 553
bile stimulation of pancreatic secretion and (*cat*), 61, 429
chemical properties of (*pig*), 66, 6
cholagogue action of (*cat*), 64, 335
circulating blood and presence of (*dog*), 64, xxviii
gastric secretion effected by (*cat*), 98, 1*P*
isolation of, 61, xxxvii
methods of extracting (*goat*), 61, 122
pancreatic enzymes secretion affected by (*cat*), 99, 428; 100, 80
transfer to pancreas of (*cat*), 61, 489
**Sedimentation rate**, mother and new-born comparison of (*man*), 90, 67*P*
red cell electrophoretic speed and (*mammal*), 95, 96
spleen effect on (*cat*), 94, 413
size relation to (*dog*), 95, 132
splanectomy effect on (*dog*), 95, 105
splenic blood and (*cat*), 94, 489
**Semicircular canals**, activity of (*ray*), 99, 89
auditory nerve responses from (*frog*), 86, 140
**Seminal plasma**, properties of (*man*), 84, 208
**Seminal vesicles**, androgens action on growth of (*guinea-pig*), 94, 33
growth and castration effect on (*mouse*), 78, 442
seminal plasma effect on (*mammal*), 84, 212
vaso-dilator substance present in (*mammal*), 88, 213
**Semitendinosus**, reflex response of (*cat*), 69, 17
**Sensory cortex**, species difference in topography of (*mammal*), 100, 160
**Sensory end-organ** adaptation, stimulus and response factors in (*frog*), 72, 395
cerebral cortex receiving afferent discharges from (*mammal*), 100, 159
fatigue, skeletal muscle preparation (*frog*), 67, 270

**Sensory end organ**, nerve refractory period and response of (*frog*), 72, 400
response in perfused preparation of (*ray*), 89, 47*P*
single preparation of (*frog*), 61, VIII
single preparation in muscles (*frog*), 61; 151
strychnine action on (*frog*), 67, 17
viscous properties of muscle (*cat*), 78, 14
**Sensory nerve**, depressor fibres in (*cat*), 67, XXXVI
excitability to constant current make stimulus (*Maia*), 87, 67
impulse velocity in (*Maia*), 87, 168
impulses in (*crab*), 69, XXXII
acid stimulation to skin and (*frog*), 70, XX
measurement of (*frog, mammal*), 61, 49
measurement of touch and pressure (*cat*), 61, 465
pain receptors and (*cat, frog*), 62, 33
retinal stimulation and (*Conger eel*), 62, XXIII
single end-organ preparation and (*frog*), 71, 64
recovery rate in (*frog*), 68, 14
stimulation (*dog*), 94, 507
motor cortex and pyramidal tract activity affected by (*mammal*), 97, 167
respiratory response to, 93, 39*P*
water diuresis affected by (*dog*), 81, 250
sympathetic vaso-constrictor fibres in (*cat*), 74, 39
**Sensory nerve-ending**, antidromic response from (*cat, frog*), 85, 82
ions action on (*frog*), 79, 500
motor neurone properties comparison with, 92, 308
potassium and reversible inexcitability in (*frog*), 79, 103
**Sensory nerve roots**, impulses passing from spinal cord in (*cat*), 81, 29*P*
***Sepia***, amine oxidase distribution in tissues, 99, 364
chromatophore myograms, 83, 13*P*
strength-duration curve, 83, 433
fin nerve action potentials, 83, 21*P*
electrical excitation, 83, 20*P*, 425
electrotonus in, 86, 6*P*
strength-duration curve, 83, 23*P*
giant nerve fibre structure, 83, 27*P*
**Serum**, adrenaline inactivation in (*cat*), 91, 238
albumin-globulin ratios in normal and immunized (*rabbit*), 93, 11*P*
anions, exercise effect on (*man*), 69, 287
**Serum, anti-diuretic augmenting substances** in (*horse*), 96, 298
anti-haemolytic action of (*man*), 90, 68*P*
aqueous humour osmotic pressure in relation to (*cat*), 89, 61
calcium, hypophysectomy effect on (*rat*), 92, 126
parathormone action on (*rat*), 76, 319
carbon dioxide combinations in (*man*), 90, 48*P*
carbonic anhydrase inhibitor in (*pig*), 87, 41*P*; (*mammal*), 91, 474
composition, exercise and fatigue effect on (*man*), 69, 288
electrolytes, water diuresis and dilution of (*dog*), 70, 48
lipoid, pregnancy and pseudo-pregnancy effect on (*rabbit*), 86, 251
oedema development with perfusion of (*frog*), 98, 114
osmotic pressure and albumin-globulin ratio changes in (*rabbit*), 93, 11*P*
particle count, fat meal effect on (*man*), 90, 22
*p*H of (*man*), 63, 349
exercise and ventilation rate relation to (*man*), 69, 296
high altitude effect on (*man*), 71, 56
potassium, adrenaline action on (*cat*), 82, 393; 86, 219
and factors affecting (*cat*), 90, 303
protein. *See* **Serum protein**
sodium, scalding effect on (*cat*), 96, 27*P*
solids, exercise and protein relation to (*man*), 69, 281
ultra filtration of, 65, XII
ultramicroscopic particles and meal effect on (*man*), 87, 53*P*
**Serum protein**, age effect on (*dog*), 73, 305
amphoteric properties of (*man*), 90, 49*P*
exercise effect on concentration of (*man*), 69, 280
high external temperature effect on concentration of (*man*), 84, 414
osmotic pressure of (*man*), 61, 319
age effect on (*dog*), 73, 309
in foetus and mother (*sheep*), 93, 81
renin reaction with, 98, 290
water-diuresis and dilution of (*dog*), 70, 48
**Sesame oil**, subcutaneous rate of absorption of (*rodent*), 78, 156
**Sex**, adrenalectomy survival time influenced by (*rat*), 86, 235
blood pressure differences with (*cat*), 98, 92
blood vapour pressure affected by (*man*), 70, 427
vitamin-A deficiency nerve lesions affected by (*rat*), 94, 317

**Sex glands**, adrenal cortical extract effect on development of (*mouse*), 76, 193
embryonic extracts effect on (*mammal*), 97, 495
**Sexual skin**, blood vessels in (*monkey*), 94, 19
oedema, changes associated with (*monkey*), 94, 13
swelling, water balance relation to (*monkey*), 88, 375
water distribution in (*monkey*), 89, 15*P*
**Sheep**, birth, blood oxygen capacity changes following, 92, 253
birth, blood oxygen saturation at, 90, 28*P*
carotid blood oxygen concentration at, 94, 571
placental blood to foetus at, 90, 27*P*
carbon monoxide uptake by red blood cells, 62, 241
central nervous system sections effect on foetal movement, 91, 345; 89, 55*P*
ductus arteriosus closing time, 93, 36*P*
foetal. *See* **Sheep, foetal**
foramen ovale functional closing time, 94, 256
growth and increase in blood volume, 94, 541
haemoglobin oxygen dissociation rate, 79, 164
insulin effect on foetal blood sugar, 92, 459
ketonaemia in pregnancy, 94, 346
oxyhaemoglobin isoelectric point, 71, 323
placental circulation, 100, 20*P*
pregnancy disease and ketonaemia, 97, 120
pregnancy effect on blood volume, 95, 159
on fat distribution in tissues, 99, 443
on fatty infiltration of liver, 97, 238
red blood cell oxygen uptake rate, 62, 232
solitary tract extension in embryo, 90, 29*P*
umbilical blood oxygen saturation, 97, 347
umbilical cord blood flow, 95, 273
**Sheep, foetal** age effect on blood oxygen saturation, 97, 341
carotid and umbilical blood oxygen saturation, 87, 37*P*
heart rate with umbilical cord clamping, 90, 25*P*
leg amputation, 93, 29*P*
movement in asphyxia and brain section, 91, 338
respiration with asphyxia, 96, 12*P*; 97, 338
'righting' movements development, 89, 19*P*
serum osmotic pressure, 93, 81
somatic movement genesis, 87, 73
**Sherrington phenomenon**, eserine effect on (*mammal*), 85, 1*P*
sympathetic stimulation and eserine production of (*mammal*), 86, 64
**Shivering**, pulse rate and respiration affected by (*man*), 71, 374
**Silent period**, spontaneous discharge of vibrissae sense organs and (*cat*), 98, 169
**Silver chloride**, quaternary ammonium salts action on nerve action currents with (*crab, frog*), 84, 95
**Simultaneous contrast**, successive contrast relation to (*man*), 83, 476
Weber's law and (*man*), 79, 122
**Single nerve-muscle preparation**, excitability of (*frog*), 76, 95
**Single nerve volley**, skeletal muscle response to (*cat*), 97, 46
**Single skeletal muscle fibre** contractions (*frog*), 80, 285
**Sinking sensation**, mechanism of (*man*), 65, 160
**Sino-auricular conduction**, nerve stimulation effect on (*Scyllium*), 69, 29
**Sino-auricular node**, stimulation of (*mammal*), 72, 31*P*
**Sinus arrhythmia**, asphyxia and, 71, 427
**Sinus caroticus** nerves. *See* **Carotid nerve**
**Sinus frequency**, temperature effect on (*frog*), 71, 147; (*Xenopus*), 71, 158
**Sinus rhythm**, saline effect on (*frog*), 68, 363
**Sixth cranial nerve**, nystagmus and action potentials in (*cat*), 97, 12
**Skate**. *See* **Ray**
**Skeletal muscle**, acetylcholine action on (*cat*), 87, 399; (*frog*), 89, 12*P*; (*fowl*), 94, 103
acetylcholine double action on (*frog*), 90, 8*P*
acetylcholine effect on action potentials of (*cat*), 89, 224
on response to stimulation of (*frog*), 89, 449
acetylcholine liberation at motor nerve endings to (*mammal*), 86, 353
on stimulation of (*mammal*), 81, 39*P*
acetylcholine standardization on denervated preparation of (*cat*), 79, 261
acid-base equilibrium in (*frog*), 68, 295
action potential. *See* **Skeletal muscle action potential**
adenylic acid content of (*mammal*), 72, 292
adenylpyrophosphate action in fermentation of (*rabbit*), 75, 19*P*

**Skeletal muscle**, adrenalectomy action on chemical and physical changes in activity of (*cat*), 82, 311
adrenaline action on blood flow and contraction of (*dog*), 95, 214
on blood vessels of (*cat*), 69, 174; 80, 431
on glycogen of (*cat*), 70, 67
adrenaline vaso-dilatation in (*cat*), 84, 344
aerobic activity affecting efficiency of (*frog*), 78, 246
alcohol diffusion from blood into (*cat*), 98, 231
all-or-none response initiation by acetylcholine in (*frog*), 88, 3*P*
alpha and gamma excitabilities in (*frog*), 72, 265; 75, 461
alpha and gamma substances in (*frog*), 70, 328
alpha excitability identification in (*frog*), 75, 445
alpha substance and nerve supply to (*frog*), 74, 244
anaerobic delayed heat of (*frog*), 62, 203
anaerobic heat and iodoacetate effect on (*frog*), 72, 439
anaerobic recovery heat under 'alactacid' conditions in (*frog*), 98, 462
anaesthetic effect on responses to change in stimulation rate of (*cat*), 82, 88
barbiturates effect on electrical stimulation of (*frog*), 96, 51*P*
bi-refringence and potential difference in (*frog*), 90, 37*P*
blood flow during contraction of (*dog*), 85, 375; 95, 203
during sustained contraction of (*man*), 97, 17
effect on oxygen usage of (*dog*), 99, 289
spectroscopic measurement in contraction of (*cat*), 93, 20*P*
blood lactate in resting state relation to (*man*), 79, 446
blood oxygen saturation effect on oxygen usage of (*dog*), 99, 296
blood pH and lactate production by (*P-L-Limb*), 70, 261
blood pressure reflex rise from isohaemic contraction of (*man*), 89, 372
blood supply and lactic acid production in (*frog*), 71, 356
blood vessels affected by acid and alkali on, 100, 14*P*
buffering in rigor of (*ox*), 92, 336
buffering power of (*cat*), 63, 37
calcium in diet effect on response to stimulation of (*goat, chick*), 97, 330
**Skeletal muscle**, carbohydrate balance with adrenaline action on (*cat*), 70, 74
carbon dioxide combination with (*frog*), 68, 49
decapitate eviscerated preparation and (*cat*), 68, 263
exchanges following activity of (*frog*), 98, 468
central nervous system stimulation and electromyogram of (*cat*), 61, 81
chloride and glucose diffusion into (*frog*), 97, 233
chloride diffusion in relation to potassium in (*frog*), 100, 42
chloride distribution in (*frog*), 90, 167
choline esterase in (*frog*), 89, 359; (*various*), 92, 37
in developing (*bird, mammal*), 95, 29
affected by tetanus toxin (*rat*), 96, 168
choline esters and eserine substitutes action on (*mammal*), 89, 47
chronaxie, alpha and gamma curves and (*frog*), 73, 189
retrograde polarization affecting (*frog*), 76, 261
stimulation medium affecting (*frog*), 73, 219
variations in (*cat*), 62, 120
conduction rate of impulse in (*cat*), 97, 50
constant current effect on sensory end-organ in (*frog*), 71, 92
contractile duality of (*amphibia*), 67, xxix
contraction. *See* **Skeletal muscle contraction**
'contraction time' and tetanus maintenance in (*cat*), 69, 381
contracture, single fibre preparation showing (*frog*), 80, 290
types of (*frog*), 76, 65
contralateral effects from tension receptors in (*cat*), 88, 199
creatine diffusion through (*frog*), 70, 294
creatine ingestion effect on creatine and phosphorus of (*cat*), 71, 220
creatine phosphate affected by parathyroid (*cat*), 75, 371
creatine phosphate synthesis with iodoacetate poisoning of (*frog*), 78, 295
curare action in (*frog*), 77, 342
and action potentials of (*cat*), 94, 9*P*
and chronaxie of (*frog*), 81, 113
of catelectrotonus actions on (*frog*), 95, 286
on abortive impulses in (*cat*), 100, 318
on histamine release from (*dog*), 95, 148

**Skeletal muscle**, curarine action on strength of stimulus required for contraction of (*cat*), 84, 43*P*
and eserine antagonism in (*cat*), 93, 194
and prostigmin antagonism in (*cat*), 86, 1*P*
effect on acetylcholine action on (*cat*), 87, 408
death effect on thermo-elastic properties of (*frog*), 74, 464
degeneration, contracture in (*mammal*), 76, 69
delayed anaerobic heat of, 70, 96
in twitch of (*frog*), 74, 221
delayed heat production in (*frog*), 75, 273
denervated. *See* **Skeletal muscle, denervated**
efficiency affected by oxygenation of (*frog*), 78, 248
after rest and activity in anaerobic (*frog*), 91, 259
and formulae applicable, 82, 207
in series of twitches in nitrogen (*frog*), 82, 258
with speed of movement of (*bicycling*), 67, 242
elasticity coefficient of resting and contracting (*frog*), 61, 73
elasticity in rigor mortis of (*rabbit*), 96, 176
measurement of (*frog*), 61, 494
electric potentials and potassium equilibrium in (*frog*), 100, 33
electrical field surrounding (*frog*), 66, 49
electrical resistance on stimulation of (*frog*), 79, 487
electromyogram, analysis of (*man*), 64, 181
embryonic genesis of movement in (*sheep*), 87, 73
end plate delay and fatigue of (*frog*), 76, 116
energy expended in maintaining contraction of (*frog*), 69, 306
enzymic processes in (*rabbit*), 65, 109
eserine action in avertin and urethane anaesthesia (*mammal*), 90, 84*P*
on (*cat*), 95, 36*P*
on action potentials with stimulation of (*cat*), 89, 227
on responses of (*cat*), 87, 410
on response to stimulation of (*fowl*), 94, 107
eserine and curarine antagonism in (*cat*), 93, 194
extension and viscous properties of (*frog*), 69, 486
extension, sensory nerve endings responsive to (*cat*), 78, 13
**Skeletal muscle**, extract, depressor substances in (*mammal*), 76, 15*P*
enzymic changes in (*rabbit*), 65, 109
fat, composition of (*man*), 72, 354
fatigue effect on conduction of (*frog*), 76, 122
fatigue, sympathetic nerve stimulation effect on (*frog*), 78, 164
fibrillary twitching with ischaemia of (*man*), 73, 5*P*
fluoride and sulphite effect on excitability of (*frog*), 83, 47*P*
force and speed relation in contraction of (*frog*), 96, 45
force developed with speed of shortening of (*cat, frog*), 85, 277
fractional contraction, mechanism of (*frog, cat*), 67, 1
gamma excitability identification in (*frog*), 75, 161
glycogen. *See* **Skeletal muscle glycogen**
glycogenolysis in post-mortem (*cat*), 64, 255
haematoporphyrin sensitization and light action on (*frog*), 64, 35
haemoglobin adsorption by (*ox*), 67, 282
function in (*cat*), 87, 38*P*
oxygen-combining power of (*ox*), 69, 210
heat calibration with high frequency currents of living (*frog*), 81, 364
heat, criticism of analysis of, 69, 67, 81
heat production affected by potassium action on (*frog*), 93, 305
affected by shortening of (*frog*), 75, 264
negative delayed phase in (*frog*), 77, 104
on indirect stimulation of (*frog*), 67, 372
heat-tension ratios with sub-maximal stimuli (*frog*), 70, 195
heat-tension relation in (*dogfish*), 62, 156
heat-work relationship in (*tortoise*), 61, 345
histamine production in contraction of (*dog*), 85, 409; 96, 240
histamine release by curare action on (*dog*), 95, 148
histology of red and white (*rabbit*), 67, xxxix
impedance changes in contraction of (*frog*), 89, 132
inexcitability in (*frog*), 67, 152
and conductivity of (*frog*), 65, 214
and potassium in (*frog*), 70, 389
inhibition in peripheral preparation of (*cat*), 76, 11*P*
initial heat analysis in (*frog*), 79, 492
production in (*frog*), 72, 1
initial heat: total heat ratio in twitches of (*frog*), 82, 509

**Skeletal muscle**, injury current in (*frog*), 66, 62
reversal by saponin in (*frog*), 87, 67*P*
insulin on sugar usage by (*cat*), 62, 22
insulin inactivation by cell-free extract of (*rabbit*), 94, 15*P*
interfibre space volume and concentration of substances in (*frog*), 99, 401
'interspaces', phosphate present in (*frog*), 79, 33
intra-ocular pressure affected by movements of (*dog*), 71, 27
iodoacetate effect on lactic acid metabolism of (*frog*), 75, 201
ischaemia effect on glycogen and lactic acid of (*rabbit*), 75, 14*P*
isometric heat coefficient of (*frog*), 81, 361
isometric twitch in (*cat*, *frog*), 69, III
lactate. *See* **Skeletal muscle lactate**
latent period of (*frog*), 74, 17
alpha and gamma excitabilities and (*frog*), 72, 275
length effect on resting metabolism of (*frog*), 74, 441
on viscosity of (*frog*), 69, 490
length, tension maintenance energy relation to (*frog*), 80, 213
loading rate, nerve impulse discharge relation to (*frog*), 71, 75
mammalian preparation of (*cat*), 61, VI
metabolism, length effect on (*frog*), 74, 446
postural and phasic contractions effect on (*cat*), 74, 163
potassium effect on (*frog*), 86, 165
model showing contraction and viscous properties of, 71, XV
motor nerve impulse frequency in reflex contraction of (*cat*), 67, 119
motor unit size in, 70, XVIII
movement, efficiency with speed of (*man*), 67, 242
embryo and genesis of (*sheep*), 87, 73
myotonia congenita and reactions of (*goat*), 96, 11*P*
nerve stimulation and chronaxie of (*frog*), 70, 317
nerve volley interval effect on response of (*cat*), 97, 75
optimum stimulation rates for red and white (*cat*), 90, 10*P*
over-ventilation and carbon dioxide removal from (*cat*), 69, 116
oxygen usage affected by vasoconstriction in (*dog*), 99, 182
with blood flow and oxygen saturation variation in (*dog*), 99, 283
time course after stimulation of (*frog*), 98, 207
**Skeletal muscle**, parathyroidectomy effect on creatinephosphate of (*cat*), 79, 218
permeability *in vivo* to electrolytes of (*frog*), 100, 48
pH. *See* **Skeletal muscle pH**
phosphagen in (*frog*), 63, 155
changes in (*frog*), 65, 15
phosphate. *See* **Skeletal muscle phosphate**
pitressin action on blood supply to (*cat*), 70, 54
pituitrin inactivation by (*guinea-pig*), 85, 508
plurisegmental innervation of (*frog*), 66, 431
effect on heat and tension of (*frog*), 70, 205
postural reversal in peripheral preparation of (*cat*), 76, 52
posture and metabolism of (*cat*), 74, 163
potassium. *See* **Skeletal muscle potassium**
pressor substance in (*ox*), 66, 421
pulse rate reflex rise from ischaemia of (*man*), 92, 169
quaternary ammonium salts action on (*rabbit*), 83, 7*P*
and stimulation rate effect on (*cat*), 93, 6*P*
quinine action on (*various*), 95, 45
radio-active phosphorus retention in (*rat*), 100, 376
recovery heat affected by high temperature on (*frog*), 82, 278
and pH effect on (*frog*), 98, 455
in (*tortoise*), 62, 93
in working and isometric contraction (*frog*), 65, 385
reciprocal contraction of antagonists, class experiment on, 68, XIX
reflex inhibition of (*cat*), 64, 199
refractory period and abortive impulses in (*cat*), 100, 325
relaxation with quick loading of (*frog*), 95, 63*P*
repetitive discharge with single stimulus to (*cat*), 94, 7*P*
resting heat production with cocaine action on (*frog*), 84, 7
rhythmic activity in fibres of (*frog*), 78, 271
rigidity, basal ganglia damage effecting (*cat*), 96, 39*P*
sense, appreciation of (*man*), 77, 11*P*
sensory end organ fatigue in (*frog*), 67, 270
response in (*frog*), 61, 151
single preparation in (*frog*), 71, 64
sensory nerve-endings in (*cat*), 78, 1

**Skeletal muscle**, sensory nerve impulse with stretching of (*frog*), 61, 57
sensory receptors response to vibratory stimulus (*frog, mammal*), 93, 316
Sherrington phenomenon with sympathetic stimulation of (*mammal*), 86, 64
single sensory end organ preparation from (*frog*), 61, VIII
speed of movement and factors limiting (*man*), 83, 40*P*
speed of shortening and force developed in (*cat, frog*), 85, 277
spindle, contraction effect on response from (*frog*), 72, 153
function of (*cat*), 78, 21
stilboestrol effect on (*frog*), 96, 23*P*
stimulation suitable to produce postural tone in (*cat*), 71, 292
stimulation, vasomotor reflexes and (*cat*), 65, 335
stretch effect on sensitivity of (*cat*), 76, 58
stretch response and factors affecting (*frog*), 84, 1
with initial load in (*frog*), 74, 456
stretching injuring effect on (*frog*), 96, 60
strychnine action on sensory impulses from (*frog*), 67, 19
submaximal response of single fibre of (*frog*), 80, 285
sugars diffusion into (*frog*), 84, 59*P*; 100, 246
supernormal phase in contraction of (*frog*), 76, 187
sympathetic innervation of (*pigeon*), 67, I of special fibres in (*rabbit*), 61, XXXII
sympathetic nerve stimulation effect on (*frog*), 78, 161; (*monkey*), 88, 352
blood flow and contraction of (*dog*), 95, 214
reflex contraction of (*cat*), 75, 7*P*
sympathetic vaso-dilator action in (*dog*), 75, 148; (*hare, rabbit*), 88, 343
sympathectomy effect on (*dog*), 67, IV; 69, 356
metabolism of (*dog*), 69, 384
temperature change in sustained contraction of (*man*), 97, 25
tension, development and maintenance energy of (*frog*), 80, 213
tension-heat relation affected by activity of (*frog*), 82, 15*P*
tension-length curve in stretch and release of (*tortoise*), 61, 342
relationship in (*fowl*), 93, 287
tetanus. *See* **Tetanus**
tetanus toxin action on (*cat*), 95, 30*P*; 96, 351
**Skeletal muscle**, thermo-elastic properties of (*frog*), 74, 455
tonus and contraction mechanisms in (*mammal*), 80, 20*P*
electrical discharges in (*man*), 75, 31*P*
reflex relaxation and (*cat*), 63, 197
stimulation rate necessary to produce (*cat*), 71, 294
toxaemia effect on carbohydrate metabolism of (*rabbit*), 82, 401
triphasic electrical changes in (*frog*), 98, 29*P*
twitch. *See* **Skeletal muscle twitch**
twitch-tetanus tension relation in (*cat*), 69, 381
urea diffusion through (*frog*), 70, 294
vascular system volume determination in (*frog*), 100, 239
vasoconstriction effect on oxygen usage of (*dog*), 99, 182
vaso-dilatation, factors affecting (*hare*), 88, 343
vaso-dilator fibres, cholinergic nature of (*dog*), 81, 42*P*; (*P-L-Ls*), 83, 484
vibratory stimulus effect on (*frog, mammal*), 93, 316
viscosity and energy liberation in (*frog*), 93, 4*P*
force with speed of shortening affected by (*cat, frog*), 85, 284
viscous-elastic properties of (*frog*), 61, 494; 69, 473
water diuresis and water content of (*rabbit*), 76, 9
water injection effect on chloride dilution in (*cat*), 90, 465
work-heat relationship in (*tortoise*), 61, 345
**Skeletal muscle, action potential** analysis in (*frog*), 64, 174
and myograms to two stimuli of (*fowl*), 93, 288
in (*frog*), 66, 49
with acetylcholine action on (*fowl*), 94, 105
with denervation and acetylcholine action on (*frog, mammal*), 89, 443
with single nerve volley to (*cat*), 97, 46
voluntary contraction and (*man*), 67, 134
**Skeletal muscle contraction**, action currents during voluntary (*man*), 67, 134
blood flow during (*dog*), 85, 375
blood pressure effect on (*cat*), 67, 345
efficiency after rest and activity in anaerobic (*frog*), 91, 259
energy liberation and viscosity relation in (*frog*), 93, 4*P*
force and speed relation in (*frog*), 96, 45

**Skeletal muscle contraction**, grading of (*cat*), 67, 128
heat production in (*tortoise*), 61, 255
reflex inhibition of antagonists with (*cat*), 62, 273
sensory end-organ response to (*cat*), 78, 18; (*frog*), 72, 153
sympathectomy effect on metabolism of (*dog*), 69, 368
theories of (*frog*), 78, 322
vein filling relation to (*man*), 72, 123
**Skeletal muscle, denervated**, acetylcholine action on (*cat*), 89, 12*P*; (*frog, mammal*), 89, 438
acetylcholine liberation with stimulation of (*cat*), 86, 369
acetylcholine standardization on (*cat*), 79, 261
quinine action on (*various*), 95, 47
reactions of (*mammal*), 70, 109
reactions to nerve stimulation and drugs (*mammal*), 70, 109
tetanus after-effects on (*cat*), 93, 52
**Skeletal muscle glycogen**, adrenaline action on (*cat*), 73, 103; 83, 31
adrenaline action after adrenalectomy, thyroidectomy and hypophysectomy on (*rat*), 88, 191
adrenaline and insulin action on (*cat*), 70, 76; (*rabbit*), 79, 290; (*rat*), 80, 314
adrenaline and sympathetic nerve stimulation effect on (*cat*), 90, 56*P*
decapitation and decerebration effect on (*cat*), 73, 81
fat diet and (*rat*), 65, 199
hypophysectomy effect on adrenaline action on (*rabbit*), 87, 7; (*cat*), 86, 38*P*
hypophysectomy in young effect on (*rabbit*), 88, 414
insulin action on resynthesis of (*cat*), 70, II
laevulose effect on (*rat*), 80, 486
post-mortem disappearance of (*cat*), 73, 70
resynthesis after decerebration (*cat*), 74, 338
after exercise (*cat*), 70, 288
sympathetic nerve stimulation action on (*cat*), 83, 26
synthalin action on (*cat*), 65, 94
synthesis from lactate in (*frog*), 83, 33*P*
**Skeletal muscle, lactate** diffusion into (*frog*), 79, 194
distribution in body during exercise and recovery (*dog*), 70, 277
enzyme in, 64, XVI
in rigor mortis (*fish*), 61, IV
maximum in (*frog*), 63, 110
production after adrenalectomy (*guinea-pig*), 81, 36*P*
**Skeletal muscle, pHof** (*cat*), 63, 33
affected by stretching of (*frog*), 82, 496
and elasticity in rigor of (*rabbit*), 96, 180
changes and chemical processes in contraction of (*frog*), 94, 475
following activity of (*frog*), 98, 467
in contraction of (*frog*), 69, XXI
recorded during activity of (*frog*), 90, 47*P*
effect on oxygen consumption after contraction of (*frog*), 98, 217
**Skeletal muscle, phosphate** changes in glycolysis of (*mouse*), 74, 202
compounds in (*frog*), 68, 193
after adrenalectomy in (*cat*), 80, 29*P*
creatine ingestion effect on (*cat*), 71, 220
diffusion in (*frog*), 66, 19; 79, 31
distribution in (*fly*), 80, 221
in carbohydrate metabolism of (*cat*), 62, 174
**Skeletal muscle, potassium** accumulation in (*frog*), 100, 1
action on (*frog*), 64, II; (*cat*), 91, 4*P*
on blood vessels of (*mammal*), 99, 226
on inexcitability of (*dog*), 70, 389
on resting heat production of (*frog*), 84, 3*P*
on resting metabolism and excitability of (*frog*), 86, 162
and tetanus after effects on (*cat*), 93, 47
diffusion in (*frog*), 70, 398
variations in (*man*), 96, 12*P*
**Skeletal muscle twitch**, activity effect on (*frog*), 78, 106
adrenalectomy effect on potentiation by tetanus and adrenaline (*cat*), 95, 19*P*
delayed anaerobic heat of (*frog*), 74, 221
end-organ responses during (*frog*), 72, 158
impedance changes in (*frog*), 89, 138
initial heat analyses in (*frog*), 79, 492
initial heat production in (*frog*), 72, 6
initial heat: total heat ratio in (*frog*), 82, 509
quinine action on (*various*), 95, 47
single fibre preparation showing (*frog*), 80, 287
sympathetic nerve stimulation effect on (*frog*), 78, 164
tetanus after-effects on (*cat*), 93, 42
**Skin**, acidity with temperature changes (*cat*), 64, 393
adaptation in tactile receptors of (*frog*), 72, 393
adrenaline action on vessels of (*cat*), 80, 436
blood supply, resistance response affected by (*man*), 99, 332

**Skin**, blood vessels, adrenaline action on (*cat*), 69, 182
over-ventilation and activity of (*man*), 64, xxiii
capillaries, photography of (*man*), 65, iv
carbon dioxide tension in (*rabbit*), 66, ii
under (*mammal, cold-blooded*), 61, 248
chloride excretion with high external temperatures (*man*), 84, 421
circulation rate, cyanosis effect on (*man*), 73, 344
constant current action on (*man*), 90, 93*P*
electrical phenomena, apparatus for recording, 87, 24*P*
electrical phenomena recorded from (*man*), 85, 27*P*
impedance, nerve chronaxie with hyperventilation and (*rabbit*), 96, 115
phase angle measurement and (*man*), 93, 356
injury, nerve ending reversible inexcitability with (*frog*), 79, 103
vaso-dilator substance liberated in (*man*), 62, xi
nerve impulse conduction rate with different stimuli to (*frog*), 74, 17*P*
oxygen and carbon dioxide permeation through (*man*), 67, ix
oxygen tension under (*mammal, cold-blooded*), 61, 248
in (*rabbit*), 66, ii
haemoglobin and (*rabbit*), 65, 265
penetration of temperature changes into (*man*), 69, 95
phase angle measurement of (*man*), 93, 349
potential and R.M.F. changes recorded in (*man*), 86, 23*P*
pressure receptors, injury sensitization of (*frog*), 88, 390
receptors, stimulus and frequency of response of (*frog*), 72, 386
resistance, factors concerned in (*man*), 62, 280
physiological factors involved in changes of (*man*), 99, 329
response, sympathetic nerve conduction rate measurement by (*man*), 99, 338
sensory nerve fibre and area supplied (*frog*), 72, 383
sensory nerve impulses from touch and pressure on (*cat*), 61, 468
stimulation, vasomotor reflexes and (*cat*), 65, 333
strychnine action on pressure nerve-endings in (*frog*), 67, 22
**Skin**, sympathetic vaso-dilatation in (*dog*), 87, 254
temperature, artificial heating effect on (*man*), 66, viii
sympathectomy effect on (*dog*), 69, 353
water diuresis and water storage in (*rabbit*), 76, 10
water evaporation during work from (*man*), 67, x
**Skull**, vitamin A deficiency effect on bone overgrowth in (*dog*), 99, 470
**Sleep**, acetylcholine action on hypothalamus and (*cat*), 83, 42*P*
intestinal movements affected by (*dog*), 67, 219
**Slide rule**, respiratory quotient calculation by, 64, ix
**Sluice mechanism**, location of (*P-AL-Li*), 74, 365
**Small intestine**, adenine compounds action on (*frog*), 95, 54*P*
adenyl compounds action on, 80, 354
adrenaline oxidation rate in (*rabbit*), 69, xv
afferent fibres from (*cat*), 89, 407
alcohol absorption affected by $CO_2$ in (*cat*), 62, 13
calcium effect on sugar absorption by (*rat*), 85, 109
circular muscle spiral movement in (*mammal*), 94, 426
depressor activity of extract of (*horse*), 72, 83
electrolytes action on (*rabbit*), 65, vii
electrolytes in lumen action on contractions of (*mammal*), 68, 67
exteriorization of (*dog*), 67, 212
glucose absorption from (*mammal*), 73, 163
glucose and pyruvate stimulating action on (*rabbit*), 98, 22*P*
glycogen synthesis in (*mammal*), 78, 288
histamine release on contraction of (*mammal*), 96, 149
'lysocithin' and cobra venom action on (*guinea-pig*), 94, 210
pentoses absorption rate in (*rat*), 99, 239
pressure effect on contractions of (*mammal*), 68, 69
rhythmic contractions effect on blood pressure (*cat*), 74, 490
secretin action on movements of (*rabbit*), 65, 11
secretin preparation from (*goat*), 61, 122
secretion from (*cat*), 96, 13*P*
selective permeability of (*rabbit*), 69, 185
stilboestrol action on (*mammal*), 95, 421
sugars absorption in distal end of (*cat*), 97, 509

**Small intestine**, sympathetic nerve stimulation effect on (*rabbit*), 71, 197
tension-length curve of (*cat*), 61, 276
urea action with eserine on (*rabbit*), 93, 32*P*
vasopressin action on (*rabbit*), 65, 437
**Smell**, olfactory stalk action potentials and (*fish*), 94, 448
**S-methyl iso-thiourea sulphate**, actions of (*mammal*), 100, 474
**Snail**, muscle heat production, 69, 446
**Snake**, thrombin deterioration with age, 75, 428
venoms, lung histamine liberation by (*mammal*), 90, 257
**Sodium**, aqueous humour and plasma relationship (*cat*), 96, 194
aqueous humour/blood diffusion relation of (*P-AL-H*), 98, 141
excretion, renin action on (*rabbit*), 98, 321
intestine contractions affected by changes in lumen (*mammal*), 68, 71
plain muscle and factors affecting content of (*Mytilus*), 91, 399
response to A.C. and potassium affected by (*Mytilus*), 92, 67
stretching and stimulation effect on (*Mytilus*), 96, 1
red blood cell permeability to (*rabbit*), 70, 174; (*cat*), 95, 38*P*
scalding effect on distribution in blood and tissues of (*cat*), 96, 27*P*
sensory end-organ recovery affected by (*frog*), 71, 102
sensory end-organ single preparation affected by (*frog*), 71, 87
skeletal muscle and content of (*Mytilus*), 89, 14*P*
and diffusion of (*frog*), 99, 406
permeability to (*frog*), 100, 5
rhythmic discharges stimulated by (*frog*), 78, 272
vibrissae sense organ response affected by (*cat*), 98, 172
**Soleus**, 'contraction time' and tetanus maintenance in (*cat*), 69, 381
reflexes, blocked nerve affecting (*cat*), 67, 33
**Solitary tract**, cervical extension in embryo (*sheep*), 90, 29*P*
**Sound**, electrical stimulation of cochlea compared with (*man*), 89, 123
**Sparteine**, muscle chronaxie affected by (*frog*), 81, 133
**Specific dynamic action**, anti-pituitary serum effect on (*rat*), 92, 273
glucose intravenously and (*dog*), 91, 140
**Specific gravity**, micro-determination apparatus for, 98, 3*P*
**Spectrum**, blue-green extent and position in (*man*), 98, 399
measurement, fixed-focus projector for, 68, xvi
retinal electrical responses in light adaptation to (*frog*), 89, 249
**Speech**, acoustic filters for modification of, 77, 16*P*
analysis, cathode ray oscillograph use in (*man*), 83, 45*P*
deafness effect on (*man*), 87, 2*P*
**Speedometer**, general purpose, 96, 31*P*
**Spermatozoa**, extra-uterine survival of (*rat*), 79, 230
female genital tract and ascent of (*mammal*), 74, 5*P*
**Spinal accessory nerve**, sensory stretch-receptor fibres in (*cat*), 92, 160
**Spinal cord**, acetylcholine anti-convulsant action on (*cat*), 90, 319
acetylcholine content in different parts of (*mammal*), 99, 439
in synaptic transmission in (*dog*), 100, 337
liberation with afferent stimulus to (*dog*), 100, 361
action potentials from one nerve fibre stimulus (*frog*), 95, 39*P*
and their interpretation (*frog, cat*), 92, 276
boutons terminaux function in (*cat*), 74, 4*P*
conduction rate of afferent action potentials in (*frog*), 100, 283
electromyogram of skeletal muscle with stimulation of (*cat*), 61, 86
eserine action on (*cat*), 89, 179
intermittent conduction in, 84, 9*P*; (*cat*), 85, 73
latency of afferent action potentials in (*frog*), 100, 283
lesions, knee jerk affected by, 69, xxvii
limb bud removal effect on development of (*Amphibian*), 81, 31*P*
lymph hearts synchronization effected by (*Salientia*), 95, 349
membrane hypothesis and secondary neurone excitation in, 92, 314
motor neurones excitation in (*frog, cat*), 92, 302
narcosis, electromyogram of muscle and (*cat*), 61, 87
nicotine action on (*cat*), 94, 136
prostigmine action on (*man*), 89, 21*P*
pupillo-dilator ascending fibres in (*cat*), 90, 397

**Spinal cord**, section, chromatolysis in motor horn cells following (*monkey*), 75, 11*P*
defaecation reflexes affected by (*cat*), 78, 212
flexor reflex affected by (*dog, monkey*), 75, 17
nerve degeneration following (*monkey*), 77, 18*P*
total sympathectomy effect on blood pressure response to (*cat*), 97, 277
stimulation, motor impulse discharges with (*cat*), 68, 151
strychnine and rhythmic discharges from (*frog*), 65, 231
vagus afferent pathway in (*cat*), 85, 272
ventral roots, electrotonus in (*frog, mammal*), 87, 28*P*
**Spinal flexion**, subliminal fringe in (*cat*), 66, 175
reflex, summation in (*cat*), 69, 1
**Spinal foetus**, movements of (*sheep*), 91, 345
**Spinal preparation**, extension reflexes in (*cat*), 72, 29*P*
sartorius jerk in (*cat*), 64, 207
single shock stimulus to reflex action in (*cat*), 77, 258
stretch reflex in (*dog*), 63, 144
supraspinatus tendon jerk in (*cat*), 63, 78
**Spinal reflexes** (*skate*), 63, 61
after discharge in (*Amphibia*), 90, 45*P*
anticholinesterases action on (*cat*), 96, 302
embryo development and (*mammal*), 87, 31*P*
unisegmental (*dogfish*), 82, 179
**Spinal vaso-motor centres**, resistance to anaemia and asphyxia of (*dog*), 87, 31*P*
**Splanchnic afferent nerves**, pathway of (*cat*), 84, 327
**Splanchnic area**, thyroid feeding effect on metabolic rate of (*rat*), 74, 403
**Splanchnic blood vessels**, vaso-dilatation by adrenaline and nerve stimulation (*mammal*), 85, 2*P*
**Splanchnic nerve**, acetylcholine content of (*dog*), 84, 261
functional section under local anaesthesia of (*dog*), 72, 26*P*
intestinal movement affected by stimulation of (*mammal*), 75, 480
pancreatic secretion affected by section and stimulation of (*cat*), 99, 419
right, vasomotor effects of stimulation of, 65, 441
**Splanchnic nerve**, stimulation, blood pressure after ether and (*cat*), 63, 153
lacteal contraction and (*mammal*), 63, 2
spleen contraction with (*cat*), 74, 321
**Splanchnic preparation**, depressor reflex in (*mammal*), 66, 388
**Splanchnic vessels**, acetylcholine action on (*cat*), 77, 405
**Splanchnotomy**, decerebration hyperglycaemia affected by (*rabbit*), 80, 323
renal blood flow affected by (*dog*), 89, 18
stomach emptying rate affected by (*dog*), 84, 232
**Spleen**, acetylcholine isolated from (*mammal*), 68, 97
anaphylaxis and activity of (*cat*), 68, 292
blood and haemoglobin output on stimulation of (*cat*), 61, 455
blood concentration in (*cat*), 66, 231
and sedimentation rate affected by (*cat*), 94, 411
haemolysis and sedimentation rate (*cat*), 94, 483
blood reservoir capacity of, 61, IX
capillary circulation in (*mouse*), 67, XIV
carbon monoxide acclimatization effect on weight of (*mouse*), 91, 289
effect on (*man*), 72, 117
cholesterol content of (*rabbit*), 68, 282
metabolism and (*rabbit*), 66, 255
contraction, time relations of (*cat*), 61, 461
denervation effect on response of (*dog*), 87, 189
on vaso-motor responses to drugs (*mammal*), 99, 127
exercise and changes in size of (*dog*), 64, 12; 68, 185
exteriorization of (*dog, cat*), 64, 8
haemorrhage effect on (*mammal*), 64, 6
histamine isolated from (*mammal*), 68, 97
innervation, blood cell concentration and (*dog*), 64, 27
liver glycogen formation affected by removal of (*mammal*), 84, 302
from lactate affected by (*cat*), 80, 45
nerve supply to (*cat*), 74, 321
phosphorus compounds in (*mammal*), 68, 207
post-pituitary extract destruction by (*cat*), 87, 155
pressor substance in (*ox*), 66, 421
pulp, haemoglobin concentration in (*dog*), 64, 26
red blood cell haemolysis in, 61, VII
life prolonged in (*mammal*), 95, 92
resistance in (*cat*), 61, 436
surface changes in (*dog*), 92, 39*P*

**Spleen**, rhythmic contraction, cause of (*cat*), 74, 299
of isolated, perfused (*cat*), 74, 308
rhythmic rate of contraction of (*cat*), 74, 294
size, blood sedimentation rate relation to (*dog*), 95, 132
emotion effect on (*dog*), 68, 375
intestinal operation effect on (*dog*), 68, 181
operational procedures affecting (*dog*), 76, 436
pregnancy and lactation affecting (*dog*), 76, 443
skin lesions affecting (*dog*), 76, 436
urease injection effect on (*cat*), 96, 78
vascular arrangement in (*cat*), 74, 327
vaso-dilators extracted from (*mammal*), 68, 97
volume, anaemia effect on (*rabbit*), 66, 74
blood pressure relation to (*cat*), 74, 318
ether action on (*cat*), 78, 260
pregnancy and menstruation effect on (*dog*), 66, 32
vagus action on (*cat*), 62, 289
**Splenectomy**, acholuric jaundice blood picture affected by (*man*), 95, 117
red blood cell electrophoretic speed and sedimentation rate affected by (*dog, guinea-pig*), 95, 102
red blood cell resistance following (*cat*), 61, 446
**Splenic blood**, haemoglobin content of (*cat*), 61, 459
**Splenic vein**, contractility of (*cat*), 66, 234
**'Spreading-out' phenomenon**, muscle twitch and cause of (*frog*), 78, 106
**Squid**, giant axon conduction velocity, 98, 31
nerve, action potentials and electrolyte content, 98, 299
nerve conduction velocity, 94, 560; 98, 31
synaptic transmission in absence of nerve cells, 93, 43*P*
**Staircase effect**, plain muscle showing (*Mytilus*), 90, 423; 91, 174
skeletal muscle and (*frog*), 69, 309; (*cat*), 97, 86
ventricle and (*frog, rabbit*), 75, 1
**Staphylococcal toxin**, lung histamine liberation by (*mammal*), 90, 280
**Staphylococcus vaccine**, thyreotropic hormone action affected by (*rat*), 82, 18
**Starch digestion** (*man*), 70, xxxvii
**Starvation**, blood amino acids distribution in (*cat*), 89, 274
**Starvation**, carbohydrate metabolism in muscle following (*cat*), 62, 179
fat metabolism indicated by deuterium in (*mouse*), 93, 372
ketonaemia in pregnancy produced by (*sheep*), 94, 353
liver fat affected by choline in (*rat*), 94, 48
**Static work**, nitrogenous excretion following (*man*), 62, 369
**Steady state**, exercise and attainment of (*man*), 66, 162
**Stellar nerve**, action potentials in (*Sepia*), 83, 21*P*
**Stellate ganglion**, bronchomotor responses to stimulation of (*guinea-pig*), 99, 58
cerebro-spinal fluid pressure changes affected by (*man*), 91, 196
method of excision of (*rabbit*), 61, 521
periphery supplied by (*cat*), 74, 36
vagus gastric nerves and (*cat*), 77, 453
**Stepping reflex**, mechanism of (*cat*), 62, 278
**Stereophonic sound reproduction**, apparatus for, 81, 17*P*
**Sterno-cutaneous muscle**, sensory end organ response in (*frog*), 61, 151
single sensory end organ preparation from (*frog*), 61, viii
**Sterno-mastoid muscle**, stretch receptor response from (*cat*), 92, 162
**Stethograph**, modification of Sherrington's, 68, xi
**Stilboestrol**, lactation induced by (*goat*), 98, 15*P*; (*cow*), 100, 7*P*
plain muscle and its reactions to other drugs affected by (*frog, mammal*), 95, 420
reproductive organs in male and female affected by (*rat*), 94, 178
skeletal muscle affected by (*frog*), 96, 23*P*
**Stimulation**, commutator and condenser for repetitive, 82, 423
**Stimulation apparatus**, electromagnetic induction, 93, 28*P*
**Stimulation frequency**, vasoconstrictor nerves affected by (*dog*), 99, 189
**Stimulation unit**, A.C. mains type, 84, 58*P*
faradic mains driven, 96, 57*P*
single make shocks, 86, 18*P*
**Stomach**, acetylcholine as vagus transmitter to (*dog*), 81, 320
acetylcholine in transmission of nerve impulses to (*cat*), 87, 79
acidity regulation in (*man*), 66, 356; 70, 158
acidity variations in (*cat*), 73, 115
adrenaline action on (*rabbit*), 61, 282
afferent fibres from (*cat*), 89, 407

**Stomach**, afferent neurone segmental distribution (*cat*), 93, 112
alcohol action on (*man*), 65, 81
alternating current stimulation with ions and drugs effect on (*dog*), 98, 158
atropine action on emptying rate of (*dog*), 84, 240
autonomic nerve stimulation effect on (*skate*), 83, 56
carbonic anhydrase in mucosa of (*mammal*), 94, 16*P*; 97, 32
chloride secretion in (*man*), 65, 63
contraction, vagus stimulation and (*cat*), 65, 350
depressor activity of extract of (*horse*), 72, 83
duodenal reflex action on (*cat*), 84, 4*P*
emptying, gastric acidity relation to (*man*), 83, 17*P*
mucus neutralizing action and (*cat*), 77, 296
osmotic pressure effect on (*dog*), 79, 437
regulation of (*dog*), 76, 127
fat direct action on emptying rate of (*cat*), 84, 44
fundus, secretagogue activity of (*dog*), 79, 237
glucose absorption with alcohol from (*cat*), 65, 381
glucose dilution in (*rat*), 70, 410
histamine action on blood concentration affected by (*dog*), 78, 59
on sulphate absorption by (*cat*), 99, 156
histamine content of (*dog*), 79, 234
hypotonic meals effect on emptying of (*dog*), 78, 28*P*
intestinal nervous connexions with (*fowl*), 90, 53*P*
ions, drugs and electrical stimulation effect on contraction of (*frog*), 96, 367
luminal reversal of sympathetic action on movements of (*cat*), 74, 179
movements, apparatus for study of, 81, 36*P*
cortical stimulation effect on (*monkey*), 83, 177
hypothalamic stimulation effect on (*cat*), 81, 218
sympathetic stimulation effect on (*mammal*), 70, 282
vagus action on body and pylorus (*dog*), 61, 32
muscle, adrenaline reversal effect on (*mammal*), 62, 54
*p*H changes on contraction of (*mammal*), 63, 51
vagus stimulation effect on (*cat*), 68, 125
**Stomach**, nerve-muscle preparation of (*cat*), 65, xxxv
neutralisation of acidity in (*cat*), 87, 376
'outline method' for study of motility of (*dog*), 79, 423
pancreatic secretion affected by presence of food in (*cat*), 99, 424
parasympathetic action on (*Amphibia*), 75, 101
*p*H on contraction of (*cat*), 64, 144
phosphorus compounds in (*mammal*), 68, 207
pilocarpine action on (*rabbit*), 61, 262
pressor substance in (*pig*), 66, 422
sinking sensation and (*man*), 65, 160
size, temperature effect on (*dog*), 79, 431
splanchnotomy effect on emptying rate of (*dog*), 84, 232
sympathetic nerve action potentials with stimulation of (*frog*), 78, 228
sympathetic nerve stimulation on movements of (*cat*), 71, 194
tonus, vagus stimulation effect and (*cat*), 65, 352
vagus afferent pathway from (*cat*), 85, 269
vagus and sympathetic nerve interaction on (*cat*), 73, 141
vagus nerve supply to (*cat*), 77, 447
vagus reversal by amytal on (*cat*), 75, 216
wall, potential difference across (*man*), 87, 35*P*
**Stovaine**, sympathomimetic action of (*mammal*), 97, 290
**Strength-capacity curves**, alpha and gamma excitabilities and (*frog*), 72, 271
curare action on muscle (*toad*), 81, 127
plain muscle and (*Mytilus*), 90, 418
**Strength-duration curves**, alpha and gamma excitabilities and (*frog*), 72, 267
alpha excitability and temperature effect on (*frog*), 75, 451
alpha substance nerve supply and (*frog*), 74, 245
angle of stimulation and shape of (*frog*), 70, 321
'canonical', 74, 424
curare action on (*frog*), 77, 343
double motor innervation and (*crayfish*), 88, 80
nerve and calculation of, 83, 30*P*
constant electrotonic potential and, 84, 11*P*
medullated and non-medullated, comparison of (*vertebrate*, *invertebrate*), 84, 50
and optimum stimulus (*cat*), 86, 31

**Strength-duration curves**, nerve with repetitive stimulation and (*frog*), 82, 321
nerve-muscle preparation and (*crab*), 87, 207
plain muscle and (*Holothuria*), 78, 384
slow muscle and (*turtle*), 78, 391
**Strength-duration relation**, logarithmic plotting of, 72, 281
**Strength-length curve**, gamma excitability identification and (*frog*), 75, 165
**Strength-response curve**, plain muscle action potential and contraction (*Mytilus*), 91, 175
**Stretch receptor**, antidromic sensory discharge from (*cat*), 85, 85
bladder and nerve impulses arising from (*cat*), 86, 405
fibres, spinal accessory nerve containing (*cat*), 92, 160
single preparation of (*frog*), 71, 64
skeletal muscle and (*cat*), 78, 9
vibratory stimulus and response of (*frog, mammal*), 93, 316
**Stretch reflex**, extensor muscles showing (*frog*), 70, 101
extensor reflexes in fore-limb and (*cat*), 65, 307
nerve block affecting (*cat*), 67, 38
other reflexes affecting (*cat*), 67, 37
sensory ending responsible for (*cat*), 78, 9
spinal preparation and (*dog*), 63, 144; (*cat*), 72, 30*P*
triceps extensor preparation and (*cat*), 81, 205
**Stretch response**, factors affecting (*frog*), 84, 1
initial load effect on (*frog*), 74, 456
nature of (*frog*), 74, 441
**Striated muscle**. *See* **Skeletal muscle**
**Stroke index**, significance of (*man*), 64, 44
**Stromuhr**, mechanical form of, 67, 402
mercury droplet type, 73, 414
**Strophanthin**, calcium synergism on electrocardiogram with (*man*), 89, 157
tonic action on heart of (*dog*), 64, 368
**Strychnine**, autonomic drugs depression of convulsions due to (*cat*), 90, 310
cerebellar electrical activity affected by (*cat*), 94, 75
cerebral cortical activity with sense organ stimulation affected by (*mammal*), 100, 178
'curarization' by, 87, 25*P*
curarization effect and mechanism of (*frog*), 88, 328
heart and action of (*dog*), 64, 373
**Strychnine**, Hering-Breuer reflex affected by (*rabbit*), 78, 85
histamine release from muscles in poisoning by (*dog*), 96, 244
methiodide, curariform activities of (*frog*), 82, 432
motor cortex and pyramidal tract activity affected by (*mammal*), 97, 177
nerve affected by (*frog*), 79, 67
nerve excitation time constants affected by (*frog*), 86, 67*P*
nicotine antagonism to (*cat*), 94, 144
reflex inhibition of muscle and (*cat*), 64, 203
retinal rhythmic discharges after (*eel*), 65, 283
sense organs affected by (*frog*), 67, 17
spinal cord rhythmic discharges after (*frog*), 65, 281
veratrine antagonism on muscle to (*frog*), 81, 142
on nerve-muscle to (*frog*), 77, 350
**Subarachnoid space**, carbon dioxide effect on saline absorption from (*dog*), 95, 373
ether effect on absorption rate from (*dog*), 99, 487
histamine action on saline absorption from (*dog*), 93, 423
iodoacetate action on water absorption from glucose solutions in (*dog*), 98, 185
sugars absorption from (*dog*), 96, 392
**Subcutaneous oxygen**, use of (*dog*), 64, xxxviii
**Sublimation**, tissue constituents obtained by, 70, xi
**Submaxillary gland**, acetylcholine stimulation of metabolism in slices of (*cat*), 92, 441
chorda stimulation reversal effect on venous outflow from (*cat*), 70, 449
slice respiration and metabolism (*cat*), 92, 439
sympathetic stimulation effect on (*cat*), 74, 38
**Submaximal response**, single muscle fibre showing (*frog*), 80, 285
**Suckling**, hypophysectomy effect on (*cat*), 75, 27
**Sucrose**, choline action on liver fat with diet of (*rat*), 83, 258
clearance, creatinine clearance relation to (*rabbit*), 80, 244
respiratory quotient of (*man*), 63, 315
**Sugar** absorption, calcium effect on (*rat*), 85, 109

**Sugar** absorption, large intestine and magnitude of (*rat*), 96, 172
small intestine distal end and (*cat*), 97, 509
subarachnoid space and rates of (*dog*), 96, 392
fat as source of, 87, 11*P*
nerve action potential affected by Ringer replacement with (*frog*), 84, 83
skeletal muscle and diffusion of (*frog*), 100, 246
tolerance, alcohol effect on (*man*), 71, 403
diet effect after hypophysectomy on (*rabbit*), 91, 447
utilization, hypophysectomy and pancreatectomy effect on (*cat*), 89, 32*P*
*See also* **Glucose**
**Sugars**, absorption and concentration of (*rat*), 70, 410
intestine contractions in asphyxia affected by (*mammal*), 85, 257
sympathetic ganglion synthesis of acetylcholine affected by (*cat*), 96, 286
**Sulphate** clearance, creatinine clearance relation to (*man*), 76, 333
diuresis, renal oxygen consumption with (*H-L-K*), 67, 14
excretion, exercise effect on (*man*), 75, 69
mechanism of (*man*), 76, 329
nitrogen excretion relation after protein feeding (*dog*), 77, 240
gastric absorption of (*man*), 65, 73
histamine effect on gastric absorption of (*cat*), 99, 158
**Sulphite**, glycogen synthesis from lactate in muscle affected by (*frog*), 83, 33*P*
muscle excitability affected by (*frog*), 83, 47*P*
**Sulphur** metabolism, exercise effect on (*man*), 82, 184
protein metabolism and (*man*), 72, 337
**Summation**, dorsal nerve root potentials and (*frog, cat*), 92, 282
double motor innervation and (*crayfish*), 88, 84
eserine action on muscle affecting (*cat*), 89, 232
nerve action potentials and (*frog*), 68, 29
nerve block and production of (*frog*), 90, 188
nerve excitability relation to (*squid*), 98, 58
optic ganglion action potentials and (*Dytiscus*), 91, 81
plain muscle and (*cat*), 68, 127
action potentials and (*Mytilus*), 90, 424
rhythmic response and (*cat*), 90, 72
**Summation**, pre- and post-ganglionic volleys and (*cat*), 81, 235
skeletal muscle in different species and (*fowl, cat*), 93, 283
spinal flexion reflex and (*cat*), 69, 1
strychnine action on retina and (*eel*), 65, 288
ventral nerve root potentials and (*frog, cat*), 92, 298
**Sunlight**, vitamin A destruction by, 61, xxxvi
**Superior cervical ganglion**, acetylcholine liberation in perfused (*cat*), 94, 155
action potentials and their interpretation, 89, 41*P*
action potentials from (*cat*), 80, 23*P*; 85, 179
blood sugar affected by stimulation of (*cat*), 95, 328
facilitation and inhibition in (*cat*), 85, 207
inhibitory fibres to, 82, 25*P*
N and P potential waves in (*cat*), 85, 464
**Superior cervical ganglionectomy**, exophthalmos production by acetylcholine affected by (*dog*), 97, 387
**Superior laryngeal nerve**, respiration affected by stimulation of (*dog*), 94, 512
vagus stimulation comparison on respiratory rate (*dog*), 85, 68
**Supplemental air**, posture effect on (*man*), 64, 56
**Supraspinatus muscle**, reflex contraction of (*cat*), 65, 307
tendon jerk of (*cat*), 63, 70
**Supra-vestibular connexions**, decerebrate rigidity and (*cat*), 64, 303
**Surface tension**, *p*H effect on colloidal solutions, 92, 151
**Sweat**, salt deficiency effect on composition of (*man*), 92, 215
ultra-violet radiation absorption by (*man*), 93, 335
water intake in hot external temperature effect on (*man*), 84, 413; 86, 207
**Sweat glands**, acetylcholine as transmitter to (*cat*), 81, 40*P*
acetylcholine with nervous stimulation of (*cat*), 82, 121
potassium action on acetylcholine liberation in (*cat*), 86, 313
**Sweating**, reflex nature of (*man*), 66, III
skin resistance response affected by (*man*), 99, 334
work and extent of (*man*), 67, x
**Swimmers**, pulse rate of (*man*), 76, 44
**Swimming**, spleen changes during (*dog*), 64, 14

**Switchboard effect**, retinal responses in dark adaptation and (*frog*), 88, 441
**Sympathectomy**, blood sugar control following (*dog*), 95, 431
capillary permeability affected by (*mammal*), 99, 161
cutaneous temperature changes with (*dog*), 69, 353
exercise and emotion effect on heart rate after (*dog*), 95, 454
heart rate affected by atropine after (*dog*), 95, 439
affected by vagotomy and (*dog*), 89, 4*P*
in rest and exercise affected by (*dog*), 87, 345
nerve and muscle changes following (*dog*), 70, VIII
nerve chronaxie affected by hyperventilation after (*rabbit*), 96, 114
skeletal muscle changes following (*dog*), 67, IV
metabolism following (*dog*), 69, 364
tooth development affected by (*rabbit*), 88, 71
vascular reactions following total (*cat*), 97, 273
**Sympathetic ganglion, acetylcholine.** *See* **Sympathetic ganglion, acetylcholine**
action potential, analysis of (*cat*), 85, 179
and their interpretation, 89, 41*P*
from (*cat*), 80, 23*P*; 81, 8*P*
after-discharge, acetylcholine theory and, 84, 51*P*
after-potentials, origin and nature (*cat*), 96, 118
antidromic and pre-ganglionic volley interaction in (*cat*), 91, 1
antidromic impulse effect on (*cat*), 81, 238; 88, 1
antidromic volley effect on, 85, 32*P*
calcium action on synaptic transmission in (*cat*), 97, 408
choline ester liberation with stimulation of (*dog*), 82, 9*P*
choline esterase in (*cat*), 89, 429
choline function in (*cat*), 88, 275
curarine action in differential paralysis to potassium and acetylcholine (*cat*), 86, 10*P*
denervated, acetylcholine action on (*cat*), 91, 375
acetylcholine content of (*cat*), 86, 300
drugs acting on and transmission of impulse at (*cat*), 83, 103
eserine action on, 81, 39*P*
on rate of decay at synaptic transmitter in, 94, 6*P*
**Sympathetic ganglion**, excitability, antidromic volley effect on (*cat*), 88, 22
excitability states following pre-ganglionic stimulation of (*cat*), 95, 464
facilitation in, 87, 81*P*
facilitation and inhibition in (*cat*), 85, 207; 86, 274
humoral transmission at synapses of (*cat*), 81, 305
inferior mesenteric and superior cervical comparison of impulse transmission in (*cat*), 91, 310
inhibitory fibres to, 82, 23*P*
N and P potential waves in (*cat*), 85, 464
potassium action on (*cat*), 86, 290
action on activity of (*cat*), 84, 12*P*
changes with stimulation of (*dog*), 86, 238
pre-ganglionic section effect on transmission in (*cat*), 92, 17*P*
refractory period of (*cat*), 81, 235
synapse, acetylcholine liberation at (*cat*), 80, 12*P*; 83, 106
synaptic transmitter and detonator response in (*cat*), 91, 17
transmission in direct fibres of (*cat*), 93, 86
**Sympathetic ganglion, acetylcholine** inhibition of, 86, 41*P*
liberation in perfused (*cat*), 94, 155
liberation with stimulation of (*cat*), 81, 312
loss after pre-ganglionic section (*cat*), 92, 22*P*
output from (*cat*), 88, 265
output with stimulation of (*cat*), 93, 1*P*
synthesis in (*cat*), 86, 40*P*; 96, 277
synthesis with glucose in (*cat*), 93, 46*P*
**Sympathetic nerve**, acetylcholine as transmitter in sweat gland (*cat*), 82, 121
action potentials in (*frog*), 70, XX; (*mammal*), 74, 115; (*frog*), 100, 11*P*
cholinergic fibres to stomach in (*cat*), 87, 82
conduction rate, skin resistance response in measurement of (*man*), 99, 338
degeneration, skeletal muscle and (*rabbit*), 61, XXXII
heart reflexes and part played by (*dog*), 61, 220
luminal reversal of stomach movements effected by (*cat*), 74, 179
stimulation. *See* **Sympathetic nerve stimulation**
vagal fibres to intestine in (*mammal*), 75, 489

**Sympathetic nerve**, vagus interaction on stomach with (*cat*), 73, 141
visceral stimulation on action potentials in (*frog*), 78, 235
**Sympathetic nerve stimulation**, adrenalectomy effect on blood pressure response to (*cat*), 96, 150
adrenalectomy effect on fatigue with (*cat*), 94, 261
adrenaline liberation on (*rabbit*), 70, 152
amytal effect on stomach contractions due to (*cat*), 75, 220
cocaine action on (*cat*), 71, 187
denervated muscle response to acetylcholine during (*mammal*), 70, 129
ephedrine potentiation of (*frog, mammal*), 94, 91
eserine effect on salivary response to (*cat*), 86, 23
gastro-intestinal response to (*skate*), 83, 58
portal circulation affected by (*P-AL-Li*), 74, 382
pulmonary circulation affected by (*rabbit*), 74, 274
pulmonary vessels and (*mammal*), 65, 303
salivary gland and acetylcholine liberation with (*cat*), 82, 294
salivary secretion and depressor substance formation resulting from (*cat*), 85, 17
skeletal muscle affected by (*frog*), 78, 161
blood flow during work affected by (*dog*), 95, 209
glycogen affected by (*cat*), 83, 26
reflex contraction affected by (*cat*), 75, 7*P*
response to stimulation affected by (*dog*), 97, 280
vaso-dilator cholinergic effect of (*P-L-Li*), 83, 484
stomach and intestinal movements with (*mammal*), 71, 194
stomach movements with (*mammal*), 70, 252
uterine production of acetylcholine with (*dog*), 85, 300
**Sympathetic nerve-muscle preparation**, summation in (*cat*), 81, 229
**Sympathetic system**, conduction in (*cat*), 81, 228
ether effect on (*cat*), 77, 30*P*; 78, 257
goose skin production and (*cat*), 64, 99
heart rate in exercise affected by interference with (*dog*), 83, 320
histamine control by (*cat*), 71, 33
skeletal muscle innervation by (*pigeon*), 67, 1
**Sympathetic system**, vascular response to blood carbon dioxide changes controlled by (*man*), 88, 119
**Sympathetic vaso-constrictor nerves**, pathways of (*cat*), 74, 34
**Sympathetic vaso-dilatation**, skin and intestine (*dog*), 87, 254
species difference in (*cat, dog*), 83, 495
**Sympathetic vaso-dilator fibres**, adrenaline augmentation of (*dog*), 75, 145
cholinergic nature of (*dog*), 81, 42*P*
species difference in (*mammal*), 88, 341
**Sympathin**, adrenaline oxidation and (*mammal*), 87, 7*P*
**Sympathomimetic amines**, blood vessels response *in vivo* and perfusion (*cat*), 98, 203
**Sympathomimetic substances**, liver vascular reactions to (*P-L-Li*), 97, 324
**Sympatol**, denervated nictitating membrane response to (*cat*), 91, 465
**Synapse**, acetylcholine liberation in sympathetic ganglion at (*cat*), 83, 106
**Synaptic delay**, detonator response in sympathetic ganglion and (*cat*), 91, 11
sympathetic ganglion and (*cat*), 85, 193
**Synaptic transmission**, calcium lack effect on sympathetic ganglion (*cat*), 97, 408
eserine action on rate of decay of, 94, 6*P*
eserine action on sympathetic ganglion and (*cat*), 91, 17
nerve cell bodies unnecessary for (*squid*), 93, 43*P*
**Synthalin**, carbohydrate metabolism and action of (*mammal*), 65, 83
**Systemic blood flow**, adrenaline action on (*dog*), 76, 339
aorta occlusion action and explanation of (*dog*), 85, 47
aorta occlusion action affected by central nervous system on (*dog*), 82, 377
occlusion of vessels effect on (*dog*), 78, 189
**Systole**, blood pressure and duration of (*tortoise*), 65, 152
coronary circulation affected by (*mammal*), 74, 3
affected by clamping artery during (*dog, H-L*), 79, 325
during (*dog*), 65, 360
**Systolic pressure**, coronary circulation relation to (*dog*), 64, 343; (*H-L*), 73, 412
**Systolic volume**, oxygen consumption of heart and (*dog*), 62, 257

**Tachyphylaxis**, pitressin and production of (*rabbit*), 68, 168

**Tactile receptor**, adaptation in (*frog*), 72, 393; (*cockroach*), 87, 6*P*
afferent discharges to cortex from (*mammal*), 100, 170
epidermis and (*man*), 77, 251
ions action on (*frog*), 79, 500
nerve impulse on stimulation of (*frog*), 84, 252
stretching effect on adaptation rate of (*frog*), 94, 173
tooth and response of (*cat*), 97, 209
**Tadpole**, diiodothyroxine and diiodotyrosine action on, 64, 252
hydroxyphenylalanine derivatives affecting, 73, 215
thyroid extract and thyroxine standardization, 64, 246
**Talbot-Plateau law**, retinal action potentials latent period and (*cat*), 78, 436
**Tartrate**, muscle rhythmic discharges stimulated by (*frog*), 78, 279
**Taste**, nerve impulses associated with (*cat*), 96, 41*P*
**Teat growth**, androgens action on (*guinea-pig*), 92, 33*P*
oestrus cycle effect on (*goat*), 99, 5*P*
**Temperature**, acclimatization to (*amphibia*), 98, 27*P*
arteries affected by (*mammal*), 61, xviii
circulation affected by (*frog*), 76, 472
diffusion through intestine wall affected by (*rabbit*), 69, 194
economy of muscle contraction with changes in (*frog*), 69, 311
nerve impulse conduction rate and skin changes of (*frog*), 74, 17*P*
nerve refractory period affected by (*frog*), 69, 60
neuro-muscular contracture and (*frog*), 76, 79
plain muscle contraction and (*dog*), 63, 28
skeletal muscle extract enzymes with changes in (*rabbit*), 65, 123
stretch end-organ affected by (*frog*), 71, 84
water diuresis affected by (*rat*), 76, 30
**Temperature coefficient**, heart rate and (*frog*), 71, 151
**Temperature sensations**, temperature changes required to produce (*man*), 69, 88
**Tendon**, sensory receptors response to vibratory stimulus (*frog, mammal*), 93, 316
skeletal muscle structure in relation to, 67, 12
vibratory stimulus effect on (*frog, mammal*), 93, 316
**Tendon jerk**, nerve block affecting (*cat*), 67, 38
supraspinatus muscle and (*cat*), 63, 70
**Tendon sensory nerve endings**, impulses from (*cat*), 78, 31
Philippson's reflex and (*cat*), 88, 201
**Tendon sheath**, pacinian corpuscle function in (*cat*), 68, 144
**Tension-heat relation**, rest and activity of muscle in anaerobiosis effect on (*frog*), 91, 259
ratio, aerobic activity of muscle effect on (*frog*), 78, 250
**Tension-length curve**, involuntary muscle and (*cat*), 61, 276
retractor penis and (*dog*), 61, 373
stretch and release of muscle and (*tortoise*), 61, 342
**Tension-length relationship** in skeletal muscle (*fowl*), 93, 287
**Tension ides**, speed of shortening in muscle and (*cat, frog*), 85, 285
**Tension receptors**, contralateral effects from stimulation of (*cat*), 88, 199
**Tension-time**, ballistic lever measurement of (*frog*), 74, 232
stimulation rate effect on (*frog*), 76, 187
**Tensor tympani muscle**, function of (*cat*), 81, 25*P*
**Tenuissimus**, fractional contraction of (*cat*), 67, 7
**Tertiary ammonium anticholinesterases**, quaternary group compared with (*cat*), 96, 308
**Test meal**, blood bicarbonate relation to response to (*man*), 73, 331
**Testis**, adrenal cortical extract dosage relation to weight of (*drake*), 91, 18*P*
adrenal cortical extract effect on development of (*mouse*), 76, 195
androgens action in immature male on (*guinea-pig*), 92, 15*P*
on growth of (*guinea-pig*), 94, 29
anterior pituitary extract effect on (*rat*), 75, 37*P*
anterior pituitary and thyroid feeding effect on, 75, 30*P*
embryonic extracts action on (*mammal*), 97, 498
oestrogens prolonged dosage effect on (*fowl*), 95, 382
phosphorus compounds in (*mammal*), 68, 207
pressor substance in (*mammal*), 66, 421
tissue culture of (*chick*), 63, vi
vasectomy effect on (*rat*), 79, 25
**Testosterone**, adrenal gland changes caused by (*rat*), 91, 368

**Testosterone**, comb maximum growth rate stimulated by (*capon*), 93, 413
comb response to massive dosage of (*fowl*), 92, 27*P*
gonadotropic hormone action affected by (*monkey*), 93, 15*P*
oestradiol antagonism to (*fowl*), 95, 387
oestrus inhibition by (*mouse*), 92, 371
by progesterone and by (*mouse*), 90, 15*P*
ovary affected by (*Xenopus*), 89, 38*P*
after hypophysectomy by (*mouse*), 93, 16*P*
**Tetanus**, after effects in muscle and motor end plate of (*cat*), 93, 39
blood flow and duration of (*dog*), 95, 205
in muscle during (*dog*), 85, 377
delayed anaerobic heat in (*frog*), 74, 226
'economy' of contraction in (*frog*), 69, 310
end-organ response from muscle during (*frog*), 72, 163
eserine action on (*fowl*), 94, 110
impedance changes in (*frog*), 89, 142
initial heat analysis in (*frog*), 79, 495
initial heat production in (*frog*), 72, 13
neuro-muscular conduction affected by (*fowl*), 93, 293
oxygen consumption time course following (*frog*), 98, 212
pH changes following (*frog*), 98, 467
plain muscle single stimulation producing (*cat*), 90, 71
quinine action on (*various*), 95, 50
shock following (*cat*), 87, 22*P*
tension-stimulation rate relationship in (*cat*), 69, 381
**Tetanus toxin**, peripheral action of (*cat*), 96, 348
skeletal muscle affected by (*cat*), 95, 30*P*
choline esterase affected by (*rat*), 96, 168
**Tetany**, chronaxie in (*cat*), 62, 115
phosphorus retention relation to (*man*), 75, 33*P*
**Tetra-ethylammonium iodide**, nerve electric response and accommodation affected by (*frog*), 91, 101
**Tetrahydro-β-naphthylamine**, placental glycogen reaction to (*rabbit*), 67, 366
**Tetrahydronaphthylamin**, liver cell Golgi apparatus and (*mammal*), 62, 77
thyroid gland changes with (*mouse*), 61, 404
**Tetramethylammonium iodide**, eserine action on denervated muscle with (*mammal*), 70, 134
**Thalamus**, adrenaline secretion affected by paralysis of (*dog*), 90, 57*P*
**Thalamus**, afferent discharges from sense organs and after-discharge from (*mammal*), 100, 171
**Thebesian vessels**, coronary circulation and (*H-L*), 73, 36
function of (*mammal*), 75, 18*P*
**Thermo-regulator**, radio electric relay, 96, 59*P*
**Thermostromuhr**, blood flow measurement and accuracy of (*mammal*), 93, 382
**Thixotropy**, muscle behaviour and (*Parton*), 73, 4*P*
**Thoracic breathing**, vaso-constriction reflex from (*man*), 86, 91
**Thoracic duct**, method of observation of (*mammal*), 62, 271
**Thorax**, electric symmetry of (*man*), 77, 31*P*
**Threshold angle**, gamma excitability identification and (*frog*), 75, 172
**Threshold stimulus**, angle of stimulation effect in muscle on (*frog*), 70, 330
giant axon (*squid*), 98, 39
temperature sensations and (*man*), 69, 105
**Thrombin**, anticoagulants action on, 90, 379
deterioration with age of (*make*), 75, 428
estimation of (*man*), 80, 422
hirudin reaction with, 64, 47
quantitative assay of, 100, 275
**Thrombokinase**, brain and preparation of, 96, 38*P*
chlorazol action on, 74, 9*P*
cobra venom effect on, 98, 10*P*
lecithin action on, 96, 39*P*
**Thrombus**, heparin effect on formation of white (*mammal*), 92, 20
**Thujone**, cerebral cortex action potentials affected by (*rabbit*), 81, 461
**Thymectomy**, fertility affected by (*rat*), 74, 212
puberty in male affected by (*rat*), 74, 207
puberty onset affected by (*rat*), 74, 49
**Thymus gland**, adrenals, thyroid and spleen affected by removal of (*rat*), 74, 60
exercise effect on weight of (*rat*), 85, 165
pressor substance in (*calf*), 66, 421
**Thyreoglobulin**, factors affecting secretion of (*dog*), 62, 198
oxygen consumption affected by (*rat*), 68, 394
**Thyroid anti-bodies**, specificity of (*mammal*), 90, 18*P*
**Thyroid extract**, adrenal cholesterol affected by (*rabbit*), 70, 443

**Thyroid extract**, metabolic rate affected by (*axolotl*), 64, 267
standardization of (*tadpole*), 64, 246; (*mouse*), 67, 221
**Thyroid feeding**, metabolic rate of different tissues with (*rat*), 74, 401
nembutal poisoning affected by (*rat*), 86, 183
pitressin sensitization by (*rabbit*), 68, 166
placental glycogen reaction to (*rabbit*), 67, 365
tissue oxygen tension affected by (*rabbit*), 62, 229
**Thyroid gland**, anterior pituitary and thyroid feeding effect on, 75, 30*P*
antithyrotropic serum effect on (*guinea-pig*), 86, 109
cellular changes with activity of (*mouse*), 61, 398
glycotropic factor action affected by (*rabbit*), 92, 198
gonadectomy effect on (*rat*), 79, 19
iodine-low diet effect on (*rat*), 95, 52*P*
lactation affected by (*rat*), 93, 401
oestrogens prolonged dosage effect on (*fowl*), 95, 382
ovarian hormone effect on weight of (*rat*), 83, 18
oxygen poisoning affected by (*rat*), 90, 91*P*
parathyroid feeding effect on (*rat*), 61, 557
radioactive materials ingested effect on (*rat*), 95, 516
stimulus to secretion of (*dog*), 62, 198
sympathetic nerve stimulation effect on (*cat*), 74, 38
temperature effect on structure of (*mouse*), 61, 400
thyreotropic hormone action on (*mammal*), 82, 14
vaso-motor reflexes and (*cat*), 66, 449
vitamin E deficiency effect on (*rat*), 87, 287
**Thyroidectomy**, glyconeogenesis affected by (*rat*), 95, 360
insulin action following (*rabbit*), 86, 48
insulin response after hypophysectomy and (*rabbit*), 83, 163
phlorrhizin diabetes affected by (*dog*), 77, 83
reproduction and lactation affected by (*rat*), 93, 405
skeletal muscle glycogen affected by adrenaline after (*rat*), 88, 194
**Thyronine**, oxygen consumption affected by (*rat*), 68, 400
**Thyrotropic anti-serum**, class specificity to (*fowl, mammal*), 90, 100
**Thyrotropic hormone**, antithyrotropic serum produced by (*rabbit*), 95, 410
assay of (*chick*), 94, 358
ketogenic hormone relation to (*rat*), 82, 387
liver composition affected by (*rabbit*), 93, 67
pituitary gland follicle-stimulating hormone relationship to (*mammal*), 88, 298
thyroid gland and metabolic rate affected by (*mammal*), 82, 14
thyroid gland in antithyrotropic serum-treated animals affected by (*mammal*), 86, 109
**Thyroxine**, adipose tissue deposition affected by (*mammal*), 100, 398
adrenaline content of adrenal glands affected by (*rat*), 80, 312
exercise effect on calorigenic action of (*dog*), 74, 376
ketonuria and action of (*rat*), 64, xxiii
oxygen consumption affected by (*rat*), 68, 391
standardization of (*tadpole*), 64, 246
tadpole growth affected by, 73, 216
**Tibialis anticus**, preparation for close arterial injection of (*cat*), 92, 22*P*
reflex response of (*cat*), 69, 3
**Tickling**, nervous mechanism of (*cat*), 95, 22
**Tidal air**, dead space relation to (*man*), 64, xviii; 65, 401
ventilation rate relation to (*man*), 66, 155
**Time-marker**, A.C. mains type, 84, 64*P*
**Time recorder**, electrical with leaking condenser, 86, 59*P*
**Tissue activity**, potential difference accompanying, 98, 28*P*
**Tissue carbon dioxide estimation**, 86, 153
tension (*mammal, cold-blooded*), 61, 248
haemoglobin and (*rabbit*), 65, 270
oxygen pressure effect on (*rabbit*), 68, vii
**Tissue culture**, germinal epithelium in (*chick*), 63, vi
single heart cells in (*chick*), 63, v
**Tissue extracts**, choline esters identified in, 79, 235
depressor substances in, 76, 487
vaso-dilators in, 62, 397
**Tissue oxygen tension** (*mammal, cold-blooded*), 61, 248
haemoglobin and (*rabbit*), 65, 256
oxygen pressure relation to (*rabbit*), 62, 222
**Tissue slice**, method of cutting of, 87, 56*P*

**Tissue slice**, respiration, secretion stimulus effect on (*mammal*), 87, 275
**Tissues**, adrenaline oxidation affected by (*rabbit*), 72, 88
dyes taken up by (*rabbit*), 72, 240
ultra-high frequency conductivity of (*mammal*), 89, 28*P*
**Toad**, athrophagocytosis and closed nephron, 90, 79*P*
crossed extensor reflex, 97, 357
decrementless conduction in narcotized nerve, 64, 193
**Tolerance**, alcohol metabolic rate in relation to (*cat*), 98, 246
**Tongue**, acetylcholine liberation with motor nerve stimulation to (*cat*), 86, 360
blood flow measurement spectroscopically in contraction of (*cat*), 93, 20*P*
gustatory nerve impulses from (*cat*), 96, 41*P*
potassium action on acetylcholine liberation in (*cat*), 86, 312
vaso-motor nerves, hormone liberation with stimulation of (*dog*), 77, 3*P*
**Tonus**, nerve impulses in peripheral (*crab*), 70, xxiv
plain muscle and (*dog*), 69, 393
**Tooth**, afferent impulses from (*cat*), 95, 55*P*
afferent impulses due to pressure and noxious stimulation of (*cat*), 97, 207
due to vibratory stimulus to (*cat*), 97, 220
afferent nerve endings with different properties in (*cat*), 97, 225
calcium and phosphorus in diet effect on formation of (*rat*), 95, 51*P*; 99, 18
development, nerve section effect on (*mammal*), 88, 65
vitamin A deficiency effect on (*dog*), 88, 63
enamel permeability in (*dog*), 72, 321
glycogen and calcification of (*rat*), 98, 8
magnesium deficiency effect on growth and composition of (*rat*), 99, 1
on histological appearance of (*rat*), 99, 8
radiographic examination in relation to histological structure of (*man*), 90, 403
rickets relation to state of (*man*), 96, 8*P*
vitamin A deficiency effect on nerves to (*rat*), 93, 206
*Torpedo*, electric organ cholinergic nerve, 97, 3*P*
**Torsion myograph**, improved bearing for, 69, 1
**Tortoise**, auricle conduction affected by alcohol, 61, 294
**Tortoise**, auricle conduction and ions, pH and temperature, 61, 178
cardiac output and ventricle oxygen usage, 72, 256
ear and transient response, 96, 18*P*
heart carbohydrate metabolism, 77, 436
heart phosphagen in anaerobiosis, 75, 335
heart volume and work, 65, 151
potassium output of heart with vagus stimulation, 86, 37*P*
retractor penis contraction, 96, 46
skeletal muscle contraction, force and speed relation, 96, 47
heat production analysis, 61, 253
tension-length curve in, 61, 342
ventricle energy expenditure with blood pressure, 91, 27
ventricle volume and contraction duration, 76, 4*P*
**Touch receptors**. *See* **Tactile receptor**
sensory nerve action potentials resulting from stimulation by (*cat*), 95, 5
sensory nerve impulses resulting from (*cat*), 61, 468
**Toxaemia**, carbohydrate metabolism affected by (*rabbit*), 75, 381
liver glycogen formation from lactate affected by (*rabbit*), 82, 403
liver graft causing (*dog*), 62, xxii
**Toxin**, adipose tissue deposition affected by (*mammal*), 100, 396
adsorption at oil-water interface of, 87, 9*P*
lung histamine liberation by (*mammal*), 90, 280
**Trachea**, cilia movement in (*mammal*), 64, iii; 90, 347
histamine action on (*mammal*), 76, 351
respiratory reflex slowing with pressure changes in (*rabbit*), 88, 288
**Tracheal breathing**, respiratory cycle in normal compared with (*dog*), 80, 264
**Tracings**, film use of, 64, xii
**Training**, air force tests and effect of (*boys*), 65, xv
bicycle pedalling efficiency affected by (*man*), 82, 200
blood phosphate changes in exercise and (*man*), 61, 40
effects of (*man*), 66, 136
leg volume and posture with (*man*), 72, 128
**Transient orange**, occurrence of (*frog*), 89, 355
visual purple and indicator yellow relation to (*frog*), 94, 399
**Transudation**, living membrane for measurement of (*mammal*), 71, 402

**Traube-Hering waves**, splenic contractions and (*cat*), 74, 294, 311
**Traumatic shock**, blood histamine in (*cat*), 93, 58*P*
vascular and nervous factors in (*cat*), 92, 361
**Traumatised blood**, vaso-dilator action of (*dog*), 64, 164
**'Treppe'**, muscle efficiency during (*frog*), 82, 260
**Triceps**, extensor preparation reflexes in (*cat*), 81, 194
**Triphasic electrical changes**, 98, 29*P*
**Triphenyl ethylene**, progesterone antagonism to (*rabbit*), 92, 401
**Tripolar electrodes**, nerve stimulation by (*frog*), 66, 217
**Tropical climate**, heat and light effect of (*rabbit*), 70, xxxviii
metabolism and circulation in Europeans affected by (*man*), 99, 496
**Trypsin**, blood clotting affected by injection of (*cat*), 98, 8*P*
gastric contents and presence of (*man*), 65, 71
**Tuber cinereum**, gastric motility affected by stimulation of (*cat*), 81, 222
**Tumour**, creatine and phosphate compounds in (*mammal*), 75, 136
glycolysis, phosphate changes in (*mouse*), 74, 195
**Turtle**, chronaxie in slow muscle and electrode distance, 78, 393
**Twin foetuses**, blood volume in (*sheep*), 95, 183
**Tyramine**, adrenaline effect on vaso-constrictor action of (*cat*), 98, 277
amine oxidase preference for (*Sepia*), 99, 366
blood pressure response in renal hypertension to (*rabbit*), 96, 46*P*
cocaine action on tissues with (*mammal*), 71, 169
nictitating membrane denervation effect on response to (*cat*), 91, 459
phlorrhizin glycosuria and (*rat*), 64, 352
renal hypertension effect on blood pressure response to (*rabbit*), 99, 307
respiration affected by (*cat*), 69, 497

**Ulnar nerve**, extensor reflexes of fore-limb and (*cat*), 65, 312
**Ultra-filter**, construction of, 62, xxix
**Ultrafiltration**, blood serum and method of, 65, xii
gas diffusion rate into red blood cells measured by, 73, 349
*in vivo* (*mammal*), 71, 111
**Ultra-high frequency conductivity**, tissue variation in (*mammal*), 89, 28*P*
**Ultramicroscopic particles**, fat content of blood and (*man*), 90, 18
**Ultrasonic radiation**, lethal effect of (*protozoa*), 67, 356
**Ultra-violet absorption**, maternal and foetal haemoglobin (*man*), 92, 229
measurement of, 66, xx
spectra, cerebro-spinal fluid and (*man*), 62, xxv
**Ultra-violet fluorescence**, urine and presence of, 66, xiv
**Ultra-violet radiation**, sweat absorption of (*man*), 93, 335
**Umbilical cord**, blood flow in (*sheep*), 95, 273
heart rate in foetus affected by (*sheep*), 90, 25*P*
**Umbilical vessels**, blood oxygen saturation in (*sheep*), 97, 347
**Undernutrition**, liver fat relation to (*mammal*), 94, 47
**Uniocular after-image**, binocular compared with (*man*), 69, 428
**Unisegmental reflexes** (*dogfish*), 82, 179
**Unstriated muscle.** *See* **Plain muscle**
**Urea**, body fluids equilibrium after injection of (*cat*), 95, 139
clearance, newborn infant and, 99, 269
renal circulation rate relation to (*rabbit*), 74, 219
Ringer diuresis effect on (*P-L-K, dog*) 98, 340
salt deficiency effect on (*man*), 91, 224
xylose and creatinine clearances relation to (*P-L-K*), 84, 458
diuresis, intravital staining method study of (*frog, rat*), 97, 437
osmotic work and efficiency of kidney in (*P-L-K*), 97, 372
post-pituitary action on (*dog*), 85, 43
Ringer diuresis comparison with (*P-L-K, dog*), 98, 340
excretion, basal metabolism relation to (*man*), 65, 247
blood transfusion effect on (*dog*), 75, 190
caffeine effect on (*H-L-K*), 69, 161
diabetic coma effect on (*man*), 95, 40
diffusion equation applicable to (*rabbit*), 61, 597
elasmobranch and mammal comparison of, 75, 24*P*
ureter pressure increase effect on (*H-L-K*), 71, 385
liver perfusion and formation of (*rat*), 100, 432

**Urea**, renal extraction ratio of (*rabbit*), 73, 376; 79, 375
creatinine effect on (*rabbit*), 79, 388
renal oxygen consumption affected by (*P-L-K*), 96, 98
skeletal muscle and diffusion of (*frog*), 70, 294
small intestine movements affected after eserine by (*rabbit*), 93, 33*P*
**Urease**, oligocythaemia and splenomegaly induced by (*cat*), 96, 74
**Ureter pressure**, arterial pressure relationship to (*P-L-K*), 99, 137
glomerular filtration theory and urine flow relationship to (*dog*), 83, 38*P*
urine composition affected by rise in (*H-L-K*), 71, 381
venous, arterial and glomerular pressures relation to (*H-L-K*), 72, 364
venous pressure relationship to (*H-L-K*), 72, 58
**Urethane**, anticholinesterase and central nervous action of quaternary ammonium compounds deprived of grouping of (*cat*), 96, 323
anti-diuretic hormone action affected by (*rabbit*), 98, 415
auricle oxygen consumption with (*frog*), 68, 435
blood pressure reflexes with (*rabbit*), 64, 318
blood sugar affected by (*rabbit*), 64, xix
cerebral cortex action potentials with (*rabbit*), 81, 444
heart affected by (*frog*), 66, 213
renal extraction ratios of dyes affected by (*rabbit*), 72, 239
respiration at birth affected by, 90, 29*P*
spleen volume affected by (*cat*), 78, 265
**Urethra**, afferent nerve impulses from (*dog*), 89, 9
nervous control of (*cat*), 86, 406
**Uric acid excretion**, basal metabolism relation to (*man*), 65, 247
exercise effect on (*man*), 62, 364
post-encephalitic rigidity and (*man*), 62, iv
**Urine acidity**, basal metabolism relationship with (*man*), 65, 247
acidity, food and diuresis effect on (*man*), 74, 10*P*
foodstuffs effect on (*man*), 78, 65
phosphate buffering and (*man*), 75, 29*P*
adrenaline conjugation product excretion in (*man*), 98, 365
anti-diuretic augmenting substances in (*man*), 96, 298
**Urine anti-diuretic hormone excretion in** (*rabbit*), 89, 88
with dehydration in (*rat*), 90, 118
carbon dioxide content of, 61, xvii
carbon dioxide tension in (*man*), 65, xx
composition, double heart-lung-kidney preparation and (*dog*), 68, 338
fat excretion with renal ischaemia (*dog*), 93, 51*P*
flow. *See* **Urine flow**
iron content after intravenous administration (*man*), 94, 152
lactose, causes of (*man*), 71, 341
melanophores affected by human (*frog*), 90, 429
osmotic pressure relation to anti-diuretic hormone action (*rabbit*), 98, 411
oxygen content of, 61, xvii
oxygen tension in (*man*), 65, xv, xx
phenol red excretion in (*rabbit, dog*), 82, 453
phosphate, creatine administration effect on (*cat*), 71, 222
exercise effect on (*man*), 61, 37
protein of non-heat-coagulable nature in (*man*), 70, xxxvi
renin action on formation of (*rabbit*), 98, 314
secretion. *See* **Urine secretion**
surface tension changes with menstrual cycle (*man*), 95, 404
physiological and physical factors affecting (*man*), 85, 128
ultra-violet fluorescence of, 66, xiv
**Urine flow**, cooling effect on (*P-L-K*), 89, 200
denervation of kidney effect on (*H-L-K*), 69, 137
fat diet effect on (*rat*), 77, 29*P*
ligature of one artery effect on (*H-L-2K*), 82, 16*P*
menstrual cycle effect on (*monkey*), 88, 380
recorder for, 95, 60*P*
skin stimulation effect on (*dog*), 84, 62*P*
splanchnic nerve section effect on (*dog*), 72, 26*P*
ureter and venous pressures effect on (*H-L-K*), 72, 367
ureter pressure-arterial pressure effect on (*H-L-K*), 71, 384
venous pressure increase effect on (*H-L-K*), 72, 51
water intake effect with high external temperature on (*man*), 86, 205
**Urine secretion**, hypophysectomy effect on (*rat, cat*), 91, 202
intravital dye method study of (*frog, rat*), 97, 433

**Urine secretion**, newborn infant and, 99, 265
oestrin action on (*man*), 92, 3*P*
pump-lung-kidney circuit and (*dog*), 71, 211
temperature effect on (*P-L-K*), 78, 14*P*
**Uterine contraction**, acid production in (*mammal*), 67, 74
blood flow relation to (*cat*), 92, 9
**Uterine movements**, unloaded state and (*rabbit*), 99, 352
**Uterus**, acetylcholine content after ovariectomy and oestrin (*rabbit*), 95, 258
adenine compounds action on (*guinea-pig*), 72, 302
adenyl compounds action on (*guinea-pig*), 80, 356
adrenaline action on (*rabbit*), 61, 142
modified by eserine on (*guinea-pig*), 98, 492
adrenaline reversal effect on (*guinea-pig*), 62, 59
alkali sensitization to histamine action on (*cat*), 62, 86
androgens action after ovariectomy (*mouse*), 93, 417
anterior pituitary extract effect on (*rabbit*), 75, 5*P*
and P.U. extracts in prolonged treatment effect on (*rat*), 80, 110
blood content during pregnancy (*rabbit*), 76, 447
blood flow relation to contractions of (*cat*), 92, 9
blood pressure affected by movements of (*cat*), 84, 342
blood supply and contraction affected by drugs on (*cat*), 90, 17*P*
cholinergic sympathetic nerves to (*dog*), 85, 298
cocaine action with tyramine and adrenaline on (*cat*), 71, 179
contraction recording *in vivo* (*guinea-pig*), 88, 313
cornua and cervix reciprocal activity in (*goat*), 81, 277
corpus luteum extract action on (*rabbit*), 76, 137
after hypophysectomy on (*rabbit*), 84, 296
drugs action in anaerobic state of (*mammal*), 66, 244
electrograms of (*rat*), 64, xiv
ergotamine and adrenalin action on (*rabbit*), 61, 144
ether action on (*cat*), 78, 265
foetal blood pressure with contractions of (*cat*), 74, 394; (*mammal*), 83, 230
**Uterus**, gas tensions in (*rabbit*), 76, 13*P*
gonadotropic hormone action after hypophysectomy (*rabbit*), 90, 128
haematoporphyrin sensitization and light action on (*mammal*), 64, 32
histamine and anaphylactic shock in (*guinea-pig*), 86, 51*P*
'lysocithin' and cobra venom action on (*guinea-pig*), 94, 212
metabolic rate during oestrus cycle (*rodent*), 72, 13*P*
methoxy-phenylethylamines action on (*mammal*), 76, 237
movements of unloaded (*rabbit*), 99, 352
*in vivo* unloaded (*rabbit*), 95, 8*P*
oestrin. *See* **Uterus, oestrin**
ovarian hormones action *in vivo* and *in vitro* on (*rabbit*), 85, 145
oxygen lack effect on (*mammal*), 66, 239
oxygen usage in pregnancy (*rabbit*), 83, 215
with foetal growth in (*rabbit*), 77, 201
oxytocin action. *See* **Uterus, oxytocin action**
oxytocin sensitivity after removal of embryos and placenta from (*rabbit*), 81, 376
pH of (*mammal*), 67, 66
phosphorus compounds in (*mammal*), 68, 207
pituitary extract injection effect on (*rabbit*), 72, 28*P*; (*guinea-pig*), 74, 134
pituitrin action at different stages of pregnancy (*rabbit*), 61, 382
pituitrin sensitization on (*guinea-pig*), 75, 35*P*
post-pituitary extracts effect under different conditions on (*cat*), 92, 1
pregnancy. *See* **Uterus, pregnancy**
progestin assay on (*rabbit*), 83, 150
effect on contractions of (*guinea-pig*), 87, 3*P*
and oestrone antagonism on (*rabbit*), 88, 100
secretin action on movements of (*guinea-pig*), 66, 12
spermatozoa rate of ascent in (*mammal*), 74, 5*P*
survival time in (*rat*), 79, 232
stilboestrol action on movements of (*mammal*), 95, 422
tension-length curve of (*guinea-pig*), 61, 379
**Uterus, oestrin** assay by change in weight after ovariectomy (*rat*), 85, 323
effect on contractions of (*mammal*), 78, 18*P*

**Uterus, oestrin effect on size and reactivity** of (*rabbit*), 79, 139
effect after hypophysectomy, in pregnancy and pseudo-pregnancy (*rabbit*), 84, 148
in (*mammal*), 62, 392
required to produce oestrus changes in (*mouse*), 69, 374
sensitization to oxytocin of (*mouse*), 84, 124
stimulus to bleeding of (*monkey*), 87, 51*P*
and oxytocin action on isolated (*guinea-pig*), 77, 4*P*; 79, 301
synergism in pregnancy (*mouse*), 84, 133
and progesterone effect on oxytocin action *in vivo* and *in vitro* (*guinea-pig*), 88, 312
**Uterus, oxytocin action** affected by various hormones (*mouse*), 92, 131
following abortion (*mammal*), 86, 171
in oestrus and pregnancy (*rat*), 90, 365
in pregnancy (*mouse*), 82, 107
*in vivo* and *in vitro* (*rabbit*), 84, 45*P*
on cervix of (*mammal*), 89, 309
**Uterus, pregnancy** and blood flow in (*sheep*), 95, 273
and oxytocin action (*man*), 79, 83
and pseudo-pregnancy effect on oxytocin reaction of (*rabbit*), 81, 372
effect on behaviour *in vivo* of (*guinea-pig*), 100, 263
on blood flow in (*rabbit*), 77, 194
on sensitivity to oxytocin of (*rabbit*), 78, 309
**Utricular macula**, auditory nerve responses from (*frog*), 86, 135

**Vagal lobes**, potential waves from (*goldfish*), 71, 126
**Vagina**, action potentials of (*rabbit*), 97, 139
action potentials in contraction of (*rabbit*), 98, 480
androgens action after ovariectomy (*mouse*), 93, 419
mucification produced by oestrin in (*mouse*), 71, III
ovulation following anaesthesia of (*rabbit*), 70, 385
**Vaginal oestrus**, vitamin B deficient adult rat as test animal for hormones inducing, 96, 251
**Vaginal pH**, oestrone effect on (*monkey*), 89, 96
**Vaginal smear**, anterior pituitary and P.U. extracts in prolonged treatment effect on (*rat*), 80, 107
vitamin A deficiency effect on (*rat*), 67, 26
**Vago-pressor reflex**, pathway of (*cat*), 83, 37*P*
**Vagotomy**, blood sugar affected by (*cat*), 64, 229
glucose tolerance following (*rabbit*), 61, 576
gravity action on blood pressure affected by (*cat*), 98, 88
heart rate affected by emotion after sympathectomy and (*dog*), 95, 459
pituitary gland affected by (*rabbit*), 62, I
respiration affected by (*dog*), 74, 81, 86
**Vagus escape**, venous pressure relation to (*cat*), 61, 131
**Vagus ganglia**, choline esterase content of (*cat*), 89, 432
gastric fibres and (*cat*), 77, 455
**Vagus gastric secretion**, blood carbon dioxide effect on (*dog*), 75, 347
**Vagus nerve**, acetylcholine as transmitter in gastric (*dog*), 81, 320
acetylcholine content of (*dog*), 84, 261
of heart with stimulation of (*frog, rabbit*), 82, 282
acetylcholine differential paralysis and (*frog*), 62, 89
amytal reversal of action on stomach of (*cat*), 75, 216
apnoustic centre control by (*cat*), 93, 267
bronchus tone affected by (*dog*), 87, 307
calcium and action on heart of (*frog*), 65, III
cardiac afferent impulses in (*cat*), 79, 334
cardiac pacemaker and inhibition by (*cat*), 90, 14*P*
cardiac rhythm affected by (*cat*), 76, 9*P*
cardio-accelerator action after sympathectomy (*dog*), 95, 439
cardio-inhibitor fibres in pulmonary plexus from (*dog*), 84, 268
cardiovascular reflexes and (*dog*), 61, 268
ductus arteriosus relation to (*guinea-pig*), 92, 1*P*
foetal blood pressure regulation and (*cat*), 74, 396
foetus and activity of (*goat*), 61, XXXI
gastric fibres in (*cat*), 77, 447
glucose tolerance and action of (*rabbit*), 61, XIII
heart inhibition, adrenaline action on (*mammal*), 83, 336
amytal action on (*mammal*), 69, XII
eserine and atropine action on, 80, 25*P*
latent period of (*cat*), 82, 214
two volleys on (*cat*), 82, 242
heart rate with age affected in asphyxia by (*rabbit*), 93, 93

**Vagus nerve, heart reflexes and part played by (*dog*), 61, 219**
heart reflex slowing and (*dog*), 62, 332
insulin secretion controlled by (*rabbit*), 70, 1; (*mammal*), 73, 297
knee jerk affected by stimulation of central end of (*cat*), 88, 462
oxygen poisoning and action of (*dog*), 94, 298
respiration affected by (*mammal*), 61, xix
and afferent impulses in (*cat*), 79, 332
and function of (*mammal*), 75, 130; (*dog*), 77, 1
respiratory-accelerator fibres in (*mammal*), 83, 292; (*dog*), 85, 62
sensory impulses measurement in (*mammal*), 61, 67
single volley, heart affected by (*cat*), 82, 211
spleen volume affected by (*cat*), 62, 289
sympathetic interaction on stomach with (*cat*), 73, 141
visceral afferent fibres in (*cat*), 85, 267
**Vagus nerve stimulation, acetylcholine in cerebrospinal fluid with (*dog*), 86, 283**
acetylcholine liberation with (*cat*), 89, 9*P*
atropine effect on acetylcholine production by heart with (*frog*), 90, 81*P*
A-V bundle conduction affected by (*dog*), 80, 329
foetal blood pressure response to (*mammal*), 83, 234
lacteal contraction and (*mammal*), 63, 2
luminal effect on stomach movements caused by (*cat*), 74, 185
pancreatic secretion affected by (*cat*), 99, 417
post-pituitary reflex secretion with (*dog*), 90, 87*P*
potassium liberation in heart with (*tortoise*), 86, 37*P*
pulmonary blood vessels affected by (*cat*), 80, 68
pulmonary circulation affected by (*rabbit*), 74, 273
pylorus movements affected by (*mammal*), 61, 28
respiration reflex acceleration with (*dog*), 94, 497
sino-auricular conduction affected by (*Scyllium*), 69, 37
stomach contraction and (*cat*), 65, 350
strychnine convulsions affected by (*cat*), 90, 324
**Vagus nerve-muscle preparation, responses of (*cat*), 68, 124**
**Vagus-oesophagus nerve-muscle preparation (*rabbit*), 86, 17*P***
**Vagus-stomach preparation, stimulation and drug action on (*skate*), 83, 62**
**Vagus tone, heart and (*frog*), 71, 153; (*Xenopus*), 71, 165**
vagus escape and changes in (*cat*), 61, 137
**Valerianic acid, heat of neutralization in muscle of, 68, xviii**
**Vapour pressure, gill activity measured by (*eel*), 75, 226**
**Varnish for smoked paper, 75, 41*P***
**Vascular system volume, skeletal muscle and (*frog*), 100, 239**
**Vascular tone, nerve impulse transmission affected by (*dog*), 97, 251**
**Vaso-constriction, adrenaline selective action on (*cat*), 69, 171**
alkali effect on (*cat*), 61, viii
blood carbon dioxide tension effect on (*man*), 88, 115
blood pressure in proximal and distal parts of limb with (*man*), 95, 245
deep inspiration resulting in (*man*), 86, 83
duodenal distension causing reflex (*man*), 95, 279
nerve impulse transmission affected by (*dog*), 97, 258
oxygen usage of muscle affected by (*dog*), 99, 182
reflex in paw (*cat*), 96, 14*P*
stimulation frequency effect on (*dog*), 99, 189
**Vaso-constrictor centre, response to different methods of stimulating, 87, 22*P***
**Vaso-constrictor nerves, ear and distribution of (*rabbit*), 61, 521**
lung and (*mammal*), 65, 303
measurement of periphery supplied by (*cat*), 74, 34
**Vaso-constrictor substance, ischaemic kidney production of (*dog*), 94, 287**
lungs removal of (*P-L-K*), 72, 344
spleen response after denervation (*mammal*), 99, 130
sympathomimetic amines comparison with adrenaline as (*cat*), 98, 286
**Vaso-dilatation, acetate action and (*mammal*), 66, 371**
adrenaline and (*cat, dog*), 63, 201; (*cat*), 80, 429
blood carbon dioxide tension effect on (*man*), 88, 116
blood pressure in proximal and distal parts of limb with (*man*), 95, 245
calcium effect on histamine and adrenaline, 87, 91*P*
capillary permeability changes with (*mammal*), 99, 167

**Vaso-dilatation**, lactic acid action on acetylcholine and nitrite effects on (*cat*), 63, 175
potassium action on (*mammal*), 99, 224
skeletal muscle and adrenaline action on (*cat*), 84, 344
skin resistance and (*man*), 62, 283
venous pressure affected by (*man*), 92, 388
**Vaso-dilator nerves**, acetylcholine liberation from (*dog*), 86, 33*P*
denervated muscle response to stimulation of (*mammal*), 70, 113
ear and distribution of (*rabbit*), 61, 525
skin and intestine, chemical transmission in (*mammal*), 87, 257
**Vaso-dilator substance**, adrenaline action as (*cat*), 61, 207
histamine action as (*mammal*), 61, 190
prostate and seminal vesicles production of (*mammal*), 88, 213
skeletal muscle contraction and production of (*dog*), 85, 388
skeletal muscle response to (*hare*), 88, 348
skin injury and liberation of (*man*), 62, xi
spleen response after denervation (*mammal*), 99, 128
tissue extracts and isolation of (*ox*), 62, 397
traumatized blood action as (*dog*), 64, 164
**Vaso-motor activity**, blood pressure in periphery affected by (*man*), 95, 244
**Vaso-motor centre**, adrenaline action on (*rabbit*), 92, 118
carotid sinus reflex action on (*dog*), 79, 49
method of study of (*cat*), 77, 21*P*
ergotamine action on (*cat*), 69, 335
**Vaso-motor nerves**, histamine production in muscle and action of (*dog*), 85, 417
hormone transmission at termination of (*dog*), 77, 3*P*
**Vaso-motor reflexes**, decerebrate cat and, 65, 327
duodenal distension causing (*man*), 95, 276
ergotamine action on (*cat*), 69, 331
parathyroid gland and (*cat*), 66, 449
thyroid gland and (*cat*), 66, 449
total sympathectomy and decerebration effect on (*cat*), 97, 275
**Vaso-motor response**, reflex in paw (*cat*), 96, 14*P*
**Vaso-motor tone**, abdominal arteries regulation of (*dog*), 90, 59*P*
sympathetic vaso-dilatation and (*dog*), 75, 152
**Vasopressin**—acetylcholine antagonism, denervated muscle and (*mammal*), 70, 130
anti-diuretic action of (*H-L-K*), 67, xxiv
**Vasopressin**, anti-diuretic potency of (*man, dog*), 68, 238
colon response to (*man*), 86, 8*P*
fate in body of injected (*cat*), 87, 147
*p*H effect on stability of (*cat*), 96, 340
portal circulation affected by (*cat*), 66, 274; 75, 259
pregnancy affected by (*mouse*), 69, 467
selective vaso-constrictor action of (*cat*), 70, 53
serum potassium affected by (*cat*), 82, 394
small intestine affected by (*rabbit*), 65, 437
thyroid sensitization to (*rabbit*), 68, 166
uterine blood flow and contractions with (*cat*), 92, 13
uterine response with œstrin and progesterone (*cat*), 92, 5
**'Vaso-tonins'**, development and neutralization of (*P-AL-K*), 77, 34*P*
**Vastocrureus**, reflex inhibition of (*cat*), 64, 205
**Vegetables**, calcifying properties of (*rabbit*), 61, xxiv
**Vegetarian**, athletic performance variation with protein in diet of (*man*), 82, 189
**Vein**, arterial pressure attained by constriction of (*dog*), 81, 283
dilatation in response to tapping of (*mammal*), 88, 257
histamine action on (*mammal*), 61, 283
nerve supply and reactions of (*mammal*), 87, 87
size, venous pressure relation to (*man*), 92, 394
sympathetic constrictor supply to (*dog*), 87, 262
**Vena cava, inferior**, aorta occlusion effect on systemic flow and pressure in (*dog*), 85, 49
nerve supply and reactions of (*mammal*), 87, 87
pressure, acetylcholine action on (*cat*), 77, 403
respiration effect on, studied by X-ray (*mammal*), 81, 434
respiration effect on volume of (*mammal*), 79, 470; 86, 284
splanchnic nerve stimulation effect on (*mammal*), 86, 381
stream-lines in (*mammal*), 86, 386
in late stages of pregnancy (*cat*), 88, 283
sympathetic stimulation effect on (*rabbit*), 88, 261
**Venom**, adrenal medulla affected by cobra (*cat*), 99, 108
adrenal medulla affected by bee (*cat*), 99, 104

**Venom**, histamine liberation from tissues by cobra (*mammal*), 94, 187
inactivation by adsorption of cobra (*mouse*), 94, 17*P*
lung histamine liberation by bee (*guinea-pig*), 91, 2*P*
by cobra (*mammal*), 90, 273
by snake (*mammal*), 90, 257
lysocithin and muscle-stimulating substance formation by cobra (*mammal*), 94, 232
lysocithin-like substance formation in tissues by cobra (*mammal*), 94, 187
thrombokinase affected by cobra, 98, 10*P*
**Venous blood**, carbon dioxide, high temperature effect on (*man*), 84, 287
carbon dioxide in rebreathed air and (*man*), 67, 315; 70, 244
flow, carotid sinus effect on, 86, 7*P*
gas tension determination in (*man*), 96, 9
lactic acid, arterial blood comparison with (*dog*), 70, 272
oxygen pressure, exercise effect on (*man*), 69, 302
oxygen saturation, metabolic rate relation to (*man*), 66, 151
pH measurement by modified glass electrode, 81, 147
variations in composition of (*cow*), 82, 492
water drinking effect on concentration of (*man*), 78, 137
**Venous compression**, blood composition affected by (*cow*), 82, 487
**Venous obstruction**, collateral circulation and (*cat, frog*), 68, VIII
**Venous pressure**, acetylcholine action on (*cat*), 77, 413
arterial pressure equality by applied constriction (*dog*), 81, 283
arterial pressure relationship in kidney to (*P-L-K*), 99, 141
carotid sinus reflex effect on (*dog*), 69, XXVIII
cerebro-spinal fluid pressure relation to (*man*), 91, 193
factors affecting (*man*), 92, 385
histamine action in different species (*mammal*), 70, 3
insulin on heart and (*dog*), 65, 42
intra-ocular pressure relation to (*dog*), 61, 409
intrathoracic pressure and (*dog*), 63, 84
intravenous fluid effect on (*cat*), 99, 5*P*
kidney affected by increase in (*H-L-K*), 72, 49
vagus escape affected by (*cat*), 61, 131
**'Venous pulmonary air'**, determination of (*man*), 96, 9
**Venous return**, systemic flow variation with (*dog*), 78, 189
**Ventilation rate**, arterial pH and carbon dioxide changes with (*man*), 74, 475
deflation reflex effect on (*dog*), 94, 501
exercise and pulse rate with (*man*), 66, 330
exercise at high altitude effect on (*man*), 71, 58
glucose infusion rate effect on (*dog*), 90, 444
lactic acid production in exercise relation to (*man*), 69, 295
oxygen poisoning effect on (*dog*), 72, 35
panting effect on (*dog*), 77, 20
quantitative recording of (*mammal*), 99, 257
respiration rate relation in exercise and carbon dioxide excess (*man*), 72, 179
respiratory quotient in eviscerated preparation and (*cat*), 70, 90
tidal air relation to (*man*), 66, 155
**Ventral nerve roots**, electrotonus in (*frog, cat*), 92, 287
**Ventricle**, acetylcholine concentration and action on (*frog*), 61, 540
amplitude and rate of contraction relationship in (*rabbit*), 70, 455
anaerobic metabolism of (*frog*), 82, 265
arterial pressure effect on energy expenditure of (*tortoise*), 91, 27
atropine-acetylcholine antagonism on (*frog*), 61, 548
auricle influence on (*frog*), 78, 302
buffer capacity of (*frog*), 82, 270
electrical response with filling of (*frog*), 69, 319
electrogram and metabolism of (*frog*), 84, 433
oxygen consumption of (*amphibia*), 68, 412; (*tortoise*), 72, 247
phosphate metabolism in asphyxiated auricle and (*dog*), 91, 317
refractory period, adenosine action on (*dog*), 68, 230
diastolic filling effect on (*frog*), 68, 441
relation to rate of (*mammal*), 74, 13*P*; 76, 213
rotatory movements of apex of (*mammal*), 96, 164
staircase phenomenon in (*frog, rabbit*), 75, 1
structure of (*frog*), 77, 445
vagus stimulation effect on conduction in (*dog*), 80, 337
volume effect on duration of contraction of (*tortoise*), 76, 4*P*
weight, left and right in newly born (*mammal*), 66, XI

**Ventricular fibrillation**, coronary flow affected by (*H-L*), 67, 306
**Ventricular pressure**, heart rate affected by (*dog*), 62, 333
**Ventriculin**, endocrine organ changes on feeding of (*cat*), 75, 38*P*
**Venules**, 'flare' and activity of (*man*), 64, xxxii, xxxvi
**Veratrine**, ganglionic after-potentials affected by (*cat*), 96, 124
nerve action currents affected by (*crab*), 77, 27*P*; (*Maia*), 83, 447
nerve affected by (*frog*), 79, 67
nerve heat production affected by (*frog*), 77, 25*P*
skeletal muscle response and cholinesterase affected by (*mammal*), 89, 54
strychnine antagonism on muscle to (*frog*), 81, 142
on nerve-muscle to (*frog*), 77, 350
**Vertebrae**, vitamin A deficiency effect on overgrowth of (*dog*), 99, 477
**Vertebral artery** occlusion, blood pressure affected by (*mammal*), 65, 206
**Vertebral clamp**, 69, xi
**Vertebrates**, phosphagen in muscles of, 65, 18
**Vesicular gland**, depressor substance in (*monkey*), 84, 21*P*
**Vesiglandin**, occurrence and properties of (*mammal*), 88, 228
**Vestibular connexions**, decerebrate rigidity and (*cat*), 64, 303
**Vestibular nuclei**, knee jerk affected by (*cat*), 70, xxii
**Vészi's experiment**, central inhibition and (*cat*), 62, 98
**Vibration**, saccular nerve electrical responses and (*frog*), 81, 23*P*
**Vibration receptors**, auditory nerve discharges from (*frog*), 86, 130
**Vibratory stimulus**, deep tissue receptors discharge in response to (*frog, mammal*), 93, 312
tooth afferent discharge resulting from (*cat*), 97, 220
**Vibrissae**, discharges from and ions action on sensory organs of (*cat*), 98, 163
**Villi**, electrolytes action on movements of (*cat*), 75, 440
**Viscera stimulation**, sympathetic nerve action potentials with (*frog*), 78, 225
**Visceral afferent fibres**, pupil dilatation effected by stimulation of, 83, 8*P*
**Visceral afferent neurones**, segmental distribution of (*cat*), 93, 104
**Visceral afferent pathways**, cell stations in (*cat*), 84, 329
synaptic junction lack in (*cat*), 83, 28*P*
**Visceral nerve**, action potentials in (*frog*), 100, 11*P*
**Visceral sensation**, oesophageal reflexes and, 65, 157
**Viscometer**, differential type of, 91, 19*P*
hind limb perfusion comparison with (*dog*), 78, 357
rotation form of, 68, xiii
**Viscosity**, plain muscle tonus and (*dog*), 69, 402
**Viscosity method**, red cell volume and, 74, 15*P*
**Viscous-elastic system**, plain muscle tonus and (*dog*), 69, 400
skeletal muscle as (*frog*), 69, 474
**Vision**, adaptation effect on differential brightness discrimination in (*man*), 92, 406
after-image latency and (*man*), 66, 281
apparent advance and retreat of colours in (*man*), 81, 14*P*
binocular fusion of form and colour in (*man*), 84, 381
binocular summation in dark adaptation (*man*), 91, 427
black after-image in (*man*), 73, 247
'blue arc' effect in (*man*), 69, ii
blue-green extent and position in (*man*), 98, 389
colour match with high intensity adaptation (*man*), 87, 23
flicker sensitivity and (*man*), 74, 407
intensity discrimination and adaptation in (*man*), 83, 466; 86, 15
interaction between distant areas of retina in (*man*), 69, xvii
retinal action potentials in (*man*), 79, 185
retino-cerebral interaction in (*man*), 69, 423
rod and cone interaction in after-effects in (*man*), 69, 53
sensory adaptation and mechanism of (*man*), 96, 1*P*
Weber's law and colour contrast in (*man*), 79, 121
**Visual angle**, after-image latency and (*man*), 66, 284
**Visual cortex**, eye illumination effect on activity of (*cat, monkey*), 100, 9*P*
**Visual purple**, absorption spectrum of (*frog*), 89, 341
bleaching effect on absorption spectrum of (*frog*), 89, 342
colorimetric determination of, 68, 45

**Visual purple**, chromophore carrier weight in molecule of, 98, 397
light on retina affecting content of (*frog*), 94, 436
preparation of (*frog*), 89, 334
regeneration of (*rat*), 71, 442
retinal response to monochromatic stimuli in dark adaptation and (*frog*), 88, 454
retinal sensitivity in dark adaptation relation to (*frog, cat*), 96, 31
thermal decomposition of, 93, 24
transient orange relation to (*frog*), 94, 399
**Visual responses**, species difference in (*cat, monkey*), 100, 9*P*
**Vitamin A deficiency**, body temperature affected by (*rat*), 74, 73
bone overgrowth and nerve degeneration in, 93, 42*P*; (*dog*), 96, 36*P*
bone overgrowth caused by (*dog*), 99, 467
cochlear and vestibular changes in (*dog*), 94, 384
dark adaptation tests and (*man*), 100, 256
dental nerve degeneration with (*rat*), 93, 206
early nervous lesions due to (*rat*), 89, 2*P*; 94, 307
oestrus cycle affected by (*rat*), 67, 26; 69, 349
pregnancy affected by (*rat*), 92, 32
tooth development affected by (*dog*), 88, 63
visual purple regeneration and (*rat*), 71, 449
**Vitamin A**, destruction by sunlight of, 61, xxxvi
partial hepatectomy and content in remaining liver of (*rat*), 83, 240
**Vitamin B** deficiency, gonadotropic hormone assay on anoestrus animal due to (*rat*), 96, 248
heart-block and (*pigeon*), 68, 1
**Vitamin $B_1$**, adrenal cortex effect on phosphorylation of (*rat*), 97, 1*P*
brain acetylcholine content affected by lack of (*pigeon*), 96, 6*P*
brain oxygen uptake affected by (*pigeon*), 72, 32*P*
brain respiration affected by deficiency of (*rat*), 85, 456
brain respiratory quotient affected by (*pigeon*), 79, 6*P*
choline action on growth with (*rat*), 85, 345
crystalline preparation of (*yeast*), 76, 17*P*
deficiency, reproduction affected by (*rat*), 100, 423
skeletal muscle lactic acid in (*pigeon*), 71, xxx
**Vitamin $B_1$**, insulin content of pancreas affected by (*rat*), 97, 115
kidney respiration affected by (*pigeon*), 81, 11*P*
liver fat affected by (*rat*), 86, 27*P*; 89, 287; 94, 56
metabolism of, 96, 55*P*
**Vitamin $B_4$**, crystalline preparation of, 76, 8*P*
**Vitamin C**, cell physiology and, 99, 9*P*
scurvy occurring with (*man*), 85, 26*P*
**Vitamin D**, calcium and phosphorus excretion affected by (*rat*), 76, 321
dentine calcium affected by (*dog*), 84, 272
ergot and presence of (*dog*), 65, xxix
rickets occurring with (*man*), 85, 26*P*
**Vitamin $D_3$**, hypertension produced by (*dog*), 90, 62*P*
**Vitamin E deficiency**, gonadotropic activity of pituitary gland in (*rat*), 86, 323
thyroid gland affected by (*rat*), 87, 287
**Vitreous body**, composition of (*horse*), 68, 155
physico-chemical properties of (*mammal*), 68, 155
**Vivi-perfusion apparatus** (*dog*), 64, 155
**Voice**, pitch change mechanism in (*man*), 91, 254
**Voltage-capacity curve**, single nerve-muscle preparation and (*frog*), 76, 101
**Volume recorder**, new type of, 66, xvii
**Voluntary movement**, action currents in muscle during (*man*), 67, 134
electromyogram analysis of (*man*), 64, 181
**Voluntary muscle**. *See* **Skeletal muscle**
**Vomiting**, mesenteric vein ligature resulting in (*cat*), 90, 254
**Vowel sounds**, energy production in (*man*), 77, 18*P*
**Vulpian phenomenon**, adrenaline action on (*mammal*), 70, 118

**Walking**, energy expenditure in running compared with (*man*), 81, 255
'habit' and cost of (*man*), 72, 18*P*
**Warm spots**, depth of end-organ in (*man*), 69, 108
**Warmth**, penetration rate into skin of (*man*), 69, 104
**Water absorption**. *See* **Water absorption balance**. *See* **Water balance**
blood dilution with administration of (*rabbit*), 75, 81
depletion, water diuresis following (*rabbit*), 76, 28
**diuresis**. *See* **Water diuresis**

**Water drinking**, blood osmotic pressure following (*man*), 70, 429
excretion, noxious agents effect on (*rat*), 97, 2
heat effects modified by intake of (*man*), 86, 204
load, post-pituitary inhibition of diuresis relation to (*dog*), 87, 291
water diuresis and (*rat*), 76, 15
loss, pituitrin action on (*reptile*), 95, 504
metabolism, menstrual cycle effect on (*monkey*), 88, 369
plasma and muscle dilution with intake of (*cat*), 90, 465
retention, oestrin and other hormones concerned in (*monkey*), 94, 3*P*
storage, pituitrin action on (*rabbit*), 76, 286
tissues and state of (*cat*), 73, 184
**Water absorption**, abdomen weight method for estimation of rate of (*cat*), 81, 167
alcohol in small intestine affecting (*cat*), 62, 15
anaesthetics and hypnotics effect on (*rat*), 76, 294
blood dilution relation to (*man*), 78, 141
blood osmotic pressure changes with (*man*), 82, 64
colon and (*rat*), 98, 487
measurement of rate of (*man*), 78, 113
pituitrin action on (*rat*), 76, 283; (*man*), 78, 147
plasma changes in chloride and solids during (*cat*), 90, 473
rate of (*mammal*), 76, 12; (*man*), 78, 122
**Water balance**, high external temperature effect on (*man*), 84, 410
oestrin action on (*monkey*), 91, 272
pituitrin action on (*fish, reptile*), 95, 501
pituitrin anaemia relation to (*mammal*), 94, 124
post-pituitary principle concerned in (*amphibia*), 100, 125
pregnancy and pseudo-parturition effect on (*mouse*), 92, 144
water diuresis relation to (*rat*), 76, 33
**Water diuresis**, acetylcholine action on post-pituitary and (*dog*), 95, 226
acetylcholine inhibition of (*dog*), 92, 16*P*
acid excretion affected by (*man*), 74, 11*P*; 78, 68
anaesthetics effect on (*rat*), 76, 294
binding of animal and temperature change effect on (*rabbit*), 76, 23
blood dilution relation to (*rabbit*), 75, 81; (*man*), 78, 127
blood osmotic pressure changes as stimulus for (*man*), 82, 62
**Water diuresis**, decerebration and anaesthesia on (*dog*), 68, 39
and hypophysectomy effect on (*dog*), 68, 305
denervated kidney and afferent stimuli affecting (*dog*), 83, 341
hypophysectomy effect on (*cat*), 81, 172
intravenous administration of water affecting (*mammal*), 78, 451
phosphate excretion during (*man*), 61, I
pitocin and pitressin action on (*man*), 68, 244
plasma colloids and electrolytes during (*dog*), 70, 60
post-pituitary extract and sensory stimuli effect on (*dog*), 81, 243
anti-diuretic threshold dose on (*dog*), 85, 39
posture effect on (*man*), 71, 334
renal blood flow affected by (*dog*), 89, 16
renal nerves action in (*dog*), 98, 190
salt deficiency effect on (*man*), 91, 224
serum electrolytes and (*dog*), 70, 48
species difference in (*mammal*), 76, 18
water load relation to (*man*), 78, 124
to post-pituitary inhibition of (*dog*), 87, 291
**Water manometer** for class use, 74, 16*P*
**Web circulation**, temperature effect on (*frog*), 76, 474
**Weber's law**, colour contrast in vision and (*man*), 79, 121
**Wedensky inhibition**, myasthenia gravis and (*man*), 78, 3*P*
skeletal muscle, stimulation under anaesthesia showing (*cat*), 82, 101
**Wever and Bray effect**, cochlea electrical response and origin of (*cat*), 81, 395
interpretation of, 71, XXVIII
nervous origin of (*guinea-pig*), 73, 2*P*
neural origin of (*cat*), 83, 243
**Whealing**, skin resistance and (*man*), 62, 283
**Wheat germ**, nervous symptoms produced by feeding of (*dog*), 61, XXV
**White muscle**, motor unit size in, 70, XVIII
**Widal's haemoclasic test**, hepatic efficiency and (*man*), 77, 63
**Wing muscles**, sympathetic innervation of (*pigeon*), 67, I
**Winkler estimation** of dissolved oxygen, modification of, 82, 5*P*
**Winter sleep**, temperature changes with (*bat*), 82, 459
**Withdrawal contraction**, plain muscle and types of (*frog*), 96, 379
**Work**, recovery heat relation in muscle to (*frog*), 65, 385

**Xenopus**, athrophagocytosis and open nephron, 90, 77*P*
body temperature effect on heart and bowel, 71, 163
creatine and creatinine effect on circulation, 92, 178
creatine action on heart beat, 90, 1*P*
heart rate and work per beat, 65, 155
intestine reaction to autonomic drugs, 71, IV
ovary, progesterone and testosterone action on, 89, 38*P*
**X-ray** cinematography, coughing studied by (*cat*), 92, 467
physiological effects of (*mammal*), 68, IV
venae cavae affected by respiration, studied by (*mammal*), 81, 434
**Xylose** absorption, factors influencing (*mammal*), 70, 404
**Xylose clearance**, creatinine and urea clearances relation to (*P-L-K*), 84, 458
cyanol clearance relation to (*rabbit*), 80, 256
sucrose, glucose and creatinine clearances relation to (*rabbit*), 80, 249
intestine permeability to (*rabbit*), 69, 193

**Yeast**, adrenalectomy survival time affected by (*rat*), 98, 380
**Yellow light**, haematoporphyrin sensitization and (*mammal*), 64, 32
**Yellow sensation**, anomalous trichromatism and (*man*), 91, 36
**Yohimbine**, nerve action potentials affected by (*Maia*), 83, 450
**Young's theory of vision**, colour contrast and (*man*), 79, 136

**Zein**, oxygen want resistance affected by (*rat*), 96, 33*P*